

Member Associated Business
Papers, Inc.

The Newspaper of the Industry

Member Audit Bureau
of Circulations.



AIR CONDITIONING AND REFRIGERATION

News

Issued Every Monday at
450 W. Fort St., Detroit 26, Mich.

August 23,
1948

Vol. 54, No. 17, Serial No. 1014
Established 1926.

Reentered as second-class matter October 3, 1936 at the post office at Detroit, Michigan, under the Act of March 3, 1879. Trade Mark Registered U. S. Patent Office. Copyright, 1948, by Business News Publishing Co.

PUBLIC LIBRARY
AUG 23 1948

INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
Wehrly's Crystal Ball
REAL Money
Useless Multiplication
Recent 1948 Increases
In Buying Power
Where Are We Headed?
What Might Happen to the
Consumers Price Level
Conclusions

Story of the Week

"This laugh is contributed by a subscriber in Burlington, Iowa:

"You're talking to the Republican whom Franklin D. Roosevelt hated most," announced Dr. A. V. Eisenhart, local dentist, to W. C. Jones, sales promotion manager for Bendix Home Appliances, Inc., who was conversing with Bill Waugh, partner in the Waugh Brothers appliance store of Burlington.

"How's that?" asked Jones.

"Why, every time F. D. R. went on the radio, he raised Cain with Bill Waugh."

"Oh, yeah? How come?" queried Jones. "What did Roosevelt say about him?"

"I hate Waugh!"

Wehrly's Crystal Ball

Remainder of this column is turned over to Nash-Kelvinator's economic analyst, H. D. Wehrly, for a remarkably common-sensical approach to the problem of buying power and prices in this hectic era.

Take it away, Mr. Wehrly:

Today there is considerable discussion and some misunderstanding or confusion regarding the price level and increased cost of living. In my opinion, these problems may be aggravated in the next six to 12 months, as prices continue to advance and workers find that the third-round wage gain has melted away in increased prices.

Then everybody will try to find someone to blame it on. Labor will say it's due to high profits. Some industries will again comment on labor productivity. The city guy will blame the farmer. The farmer will talk about high city prices and the cost of labor. Some will blame the bankers. The wholesaler or retailer will "pass the buck" to the producer. Others will say it's exorbitant retail and wholesale profits, etc.

And very few people will admit that it's due to our collective stupidity in increasing the money supply and the buying power of the market vastly beyond the increase in production of goods, but that's right. We have too much money to spend and not enough goods to spend it on.

Today, marketing men and economists can quickly get into a hot argument when they present different economic theories to explain the mess we are in, and what we ought to do to get out of it.

There is, however, one inescapable fact that all of us could well afford to pay attention to—particularly in connection with recent price increases. The fact is simple. It can't be argued down. Here it is:

Prices—the general price level—the cost of living—these are determined largely by two things:—

1st. The amount of money people receive and spend.

2nd. The quantity of goods (and service) available to spend the money on.

In other words:

Expenditures divided by available goods (and service) equal the price level.

E

— P.

G

(Continued on Page 6, Column 3)

New Terms: 20% Down, 15 Months

June Sales Hit 389,973 for 13 NEMA Mfrs.

NEW YORK CITY—World sales of household electric refrigerators during June jumped to 389,973 for the 13 manufacturers reporting to the National Electrical Manufacturers Association.

In May, with 12 companies represented, the total was 335,411.

The June sales brought the total for the first six months of this year up to 2,016,523, of which 1,913,408 were sold in the United States, 773 in Canada, and 102,342 in other foreign countries.

Represented for the first time in the Nema report for June is the Stoddard Mfg. Co.

The 8-cu. ft. size refrigerator continued to rank first in popularity during June, 113,653 being sold, as compared with 101,828 in the 9 and 10-cu. ft. class, and 100,514 7-ft. models.

Six-month totals, however give the 7-ft. size an edge over the 8-ft., 646,892 to 600,152, the Nema report shows.

Hotpoint To Triple Dishwasher Output; Acceptance Gains

CHICAGO—Automatic dishwashers and garbage Disposalls are the two appliances which have made the strongest postwar gains in consumer acceptance, Leonard C. Truesdell, vice president of marketing, Hotpoint, Inc., told a dishwasher-Disposall conference of the company's field specialists here.

Speakers at the opening session of a week's program designed to aid the dealer in sustaining high demand in the long-term strong market ahead, he said that Hotpoint has scheduled a production increase to triple current dishwasher output by the first of the year.

Outlining the agenda for the specialists' conference, Truesdell said that the new program has two specific aims: 1) to assure consistent dealer display of these two products, 2) to reach the top 15% of dealers in every distributor area, or the leading dealer in every leading community in order to establish these dealers as headquarters for dishwashers and Disposalls.

After the product specialists have

R. Kennedy Hanson Resigns As Secretary of REMA

PITTSBURGH—R. Kennedy "Bud" Hanson, for many years executive secretary of the Refrigeration Equipment Manufacturers Association, has resigned, announced H. F. Hildreth, Rema president.

Hanson, who has been serving as a part-time secretary, recommended to the Rema board of directors that a "full-time experienced trade association secretary" be employed to carry on Rema's broad program, Hildreth said.

Hanson's offer to continue as manager of the All-Industry Show sponsored by Rema was taken up by the board of directors, which "after several hours of deliberation accepted Hanson's letter of resignation with regret," Hildreth declared.

Show Space Closes Sept. 1 for First Eastern Conference

BOSTON—Manufacturers planning to exhibit at the First Eastern Refrigeration and Air Conditioning Educational Exhibit and Conference here are urged to return applications for space to exposition headquarters by Sept. 1. No booths will be assigned after that date.

Advance hotel reservations indicate that 2,500 to 3,000 service engineers, contractors, and dealers may attend the conference, which is to be held at the Bradford hotel here Friday, Saturday, and Sunday, Oct. 8, 9, and 10.

The conference and exposition are sponsored jointly by the Refrigeration Equipment Manufacturers Association and the Refrigeration Service Engineers Society, this being the second such regional affair. The first was held this spring at San Francisco.

Exposition details are being handled by Rema through R. Kennedy Hanson, exhibit manager, 1107 Clark building, Pittsburgh.

Plans for the conference are now complete, it is reported.

Both the Grand Ballroom (New England's largest) and the Lobby Salon of the Bradford hotel will be used to house exhibits, floor plans allowing for 83 booths.

Application forms have been mailed out to all exhibitors of the Fifth All-Industry Show. Manufacturers only are permitted to exhibit and only one company may occupy a booth.

Standard booth equipment included

Frozen Food Prospects Seen Good In St. Paul

ST. PAUL, Minn.—The frozen food industry has barely scratched the St. Paul market according to results of a survey conducted by the St. Paul Dispatch and Pioneer Press which indicated only about one in every three homes buys frozen fruits and vegetables and one in 10 buys frozen poultry while one in five buys fresh frozen fish.

Twenty-two different brands of fruit, 26 brands of vegetables and 20 and 32 brands of poultry and fish, respectively, were listed by St. Paul consumers as being used.

Percentage-wise, 33.3% were buyers against 66.7% non-buyers of frozen

(Concluded on Page 4, Column 5)

Strike Shuts Harvester Refrigeration Division

EVANSVILLE, Ind.—Disputes between the U.A.W.-C.I.O. and International Harvester Co. regarding some phases of new contracts shut the Refrigeration Division here and four other Harvester plants last week.

The contracts expired last Tuesday, and the union called the strike when it and the company failed to agree on new terms.

Both sides are reported to be largely agreed on wages, but seniority provisions, grievance procedure, and the question of uniformity between contracts at six Harvester plants stalled negotiations.

In addition to the Evansville works, Harvester plants in Indianapolis; Melrose Park, Ill.; Memphis, Tenn.; and Springfield, Ohio, were shut by the strike.

Sept. 20 Is Effective Date; 18 Months Permitted on Term Sales over \$1,000

WASHINGTON, D. C.—Down payment of 20% with 15 months to pay the balance will be required on refrigerators, room air conditioners, and other major appliances by newly revived Regulation W, the Federal Reserve Board revealed here Thursday night.

The regulation becomes effective Sept. 20.

Where the credit does not exceed \$1,000, the maturity is limited

Little Rush To Beat Credit Curbs Noted Among Consumers

DETROIT—Most consumers in the Detroit area apparently are either unconcerned about the forthcoming restoration of Federal controls on installment buying or have given the matter no thought, as yet, a spot check of retail appliance outlets indicated.

The survey was made just before the Federal Reserve Board issued the new retail credit-control regulation authorized by the Republican anti-inflation law.

With only one exception, the dozen dealers questioned said there has been no rush of customers to place orders before the new curbs become effective. However, some of them look for a certain increase in buying, depending on how stringent the controls are, when details of the FRB order are announced.

In an effort to take advantage of the situation, one chain concern inserted in a sale advertisement a box which read in part: "This may be your last opportunity to buy furniture and appliances on today's credit terms. Buy now before new Government controls on down payments and monthly terms go into effect."

Questioned the day after the advertisement was run, the firm's merchandise manager said the hoped-for reaction had not materialized yet. The advertisement announced that the company "is still selling furniture and appliances for as little as 10% down, and easy monthly payments as low as \$5.00."

(Concluded on Back Page, Column 1)

Rails Will Ask 7% Freight Rate Boost

NEW YORK CITY—Another increase in the retail prices of major appliances and radios appears to be in the offing with the announcement that railroads will ask the Interstate Commerce Commission for permission to raise freight rates at least 7%.

Manufacturers have stated that higher costs of production and shipments make it impossible for them to absorb any more increases. Furniture manufacturers said they were in the same position, so that increased freight rates would mean increased prices at the factory.

Local dealers seem to be resigned to higher retail prices on goods produced at distant points if the proposed boost in freight rates is allowed. But department store traffic executives in Chicago, where retailers are required by most vendors to pay freight charges, said they doubted that an increase would be passed on to consumers.

The fact that a large percentage of finished goods is delivered by highway transport in the East may keep prices from going up in that area, it was felt in some quarters. Increasing use of this type of transportation to forestall higher retail prices was predicted by several dealers.

Items Covered

Article	Down Payment
1. Automobiles	33 1/3%
2. Cooking Stoves	20%
3. Dishwashers	20%
4. Ironers	20%
5. Refrigerators	20%
6. Washing Machines	20%
7. Combination Units Incorporating Any Item In 2 to 6	20%
8. Air Conditioners, Room Unit	20%
9. Radio and Television Sets, Phonographs	20%
10. Sewing Machines	20%
11. Suction Cleaners	20%
12. Furniture and Soft-Surface Floor Coverings	20%

air conditioners, radio and television sets, phonographs, sewing machines, vacuum cleaners, furniture, and soft-surface floor coverings.

Scope of the regulation as far as amounts of installment credit are covered, has been greatly enlarged. Now covered are items costing between \$50 and \$5,000. Previously, the limit had been \$2,000.

Retailers who violate Regulation W will be liable to fines up to \$10,000 and as much as six months in jail.

Persons who borrow from banks in preference to making a direct contract with a dealer will be required to state that they will not use the

(Concluded on Back Page, Column 3)

Emerson Will Increase Radio Prices Sept. 1

NEW YORK CITY—Prices of Emerson Radio & Phonograph Corp.'s radios and television sets will go up Sept. 1, the first general price increase in the radio field this year.

The new price list will not be announced until cost calculations are completed, explained Benjamin Abrams, Emerson president, in a message to dealers.

Earlier this year Emerson had come out with several new models listed below its previous low-priced sets. And back in January and February General Electric and Philco had both reduced prices. When G-E raised many prices in June, no radios and only one television set were included.

Rising costs of labor, material, and components were cited by Abrams as necessitating the price increase.

Philco Declares Dividends Of 50 Cents and 93 $\frac{3}{4}$ Cents

PHILADELPHIA—The board of directors of Philco Corp. has declared the regular quarterly dividend of 50 cents per share on the corporation's common stock payable Sept. 11 to stockholders of record Aug. 28.

The board also declared the regular quarterly dividend of 93 $\frac{3}{4}$ cents per share on the corporation's preferred stock, 3 $\frac{3}{4}$ % Series A, payable Oct. 1 to holders of record Sept. 15.

California Employment Dept. Sees More Trade Competition

SACRAMENTO, Calif.—Increasing retail trade competition is noted by the California Department of Employment in its latest report.

"Employment in retail trade appears to be slightly higher, but smaller establishments report increasing sales difficulties because of heightened competition," the report said.

Bulletin '101' Aids Employers of Juveniles

WASHINGTON, D. C.—To assist employers who employ juvenile labor to comply with the child labor provisions of the Fair Labor Standards Act and the Federal Wage & Hour law, the U. S. Department of Labor has recently published "Child-Labor Bulletin No. 101."

The bulletin contains the child labor provisions of the Fair Labor Standards Act and the Federal Wage & Hour law, lists the seven occupations which have a minimum employment age of 18 and have been declared hazardous for young workers, and calls attention to Federal laws having child labor provisions.

The bulletin contains a questions and answers section and informs employers how to obtain proof of the age of minors.

Copies are available at Wage & Hour and Public Contracts divisions, U. S. Dept. of Labor here.

New Sales Manager



Earle Bridge Heads Sales For Detroit Vapor Stove

DETROIT—Earle "Duke" Bridge has been appointed sales manager of the Detroit Vapor Stove division of Borg-Warner Corp., it has been announced by Howard E. Blood, president of Borg-Warner's D. V. S. and Norge divisions.

In this position he will be in complete charge of sales of the White Star line of gas ranges produced by the D. V. S. division.

Bridge, who has been associated with the sale of major appliances for the last 22 years, joined the Norge sales organization in 1934, and a year later was named manager of home laundry equipment sales.

At war's end, he reassumed his duties as laundry equipment sales manager and, in addition, served as manager of refrigeration sales.

In 1946, he was named merchandise manager with the responsibility of coordinating the product program and the relationships between sales, manufacturing, and engineering departments.

Furniture Orders Rise 11% for First Six Months

NEW YORK CITY—An 11% rise in new furniture orders booked by manufacturers for the first six months of 1948 over the same period last year has been reported by Seidman & Seidman, accountants for a large number of furniture manufacturers.

The firm, however, indicated that the prospects for the second half were uncertain. The recent summer markets were described as "spotty" by the accountants, who reported "soft spots" appearing in the industry. The full force of competition is being felt by many, particularly those producing high priced furniture.

June figures indicated that 6% more orders were booked than for the previous month, with sales exceeding the total for the same 1947 month by 25%.

A 19% rise in shipments for the first six months over the same period of 1947 was also reported. June shipments were off 1% compared to May, but up 12% over June of 1947. June cancellations continued at the above normal rate of 15% in June, the same as in May.

M-H Announces Series Of Personnel Changes

MINNEAPOLIS—A series of personnel changes naming new branch and regional managers for Minneapolis-Honeywell Regulator Co. and its industrial division, Brown Instrument Co., in three cities has been announced by Thomas McDonald, vice president in charge of sales of Minneapolis-Honeywell.

Warren Jennings, vice president in charge of the Boston office and its sub-branches, has expressed a desire to be relieved of some of his more exacting responsibilities after 35 years of service with the company, McDonald said. Jennings will continue as vice president and his advice and counsel will be available not only to New England, but also to the entire eastern region.

George D. Maves has been named manager of the Boston branch, being promoted from mountain regional manager for the company with headquarters in Denver.

Succeeding Maves in Denver is Edwin A. Thompson, who has been promoted from the Peoria branch managership. Robert H. Jacobs has been named Peoria manager.

Heating, Air Conditioning Assn. Meets In Cleveland, Dec. 9-10

CLEVELAND—The National Warm Air Heating and Air Conditioning Association will hold its 35th annual convention at Hotel Cleveland, Dec. 9 and 10, George Boeddener, association secretary, reports.

Plans are already under way for arranging a rousing convention program befitting the celebration of three and one-half decades of Association activity in behalf of the industry.

Dec. 7 and 8 will be devoted to the annual meetings of the board of directors and committees.

\$25 Frozen Food Gift Boosts Home Freezer Sales In East

BUFFALO—The offer of \$25 in frozen foods with the purchase of a Norge home freezer has resulted in increased sales for dealers in the Buffalo and Erie, Pa. areas.

As reported by the Bergman Norge Co., distributor, dealers were instructed to provide 76 assorted packages of Dulany frozen foods free of charge to stimulate freezer sales.

Wise Is Regional Manager For Presteline Division

CHICAGO—Charles E. Wise has been appointed a regional manager for the Presteline Division of George T. Stevens & Associates, reports D. O. Klein, Presteline sales manager.

His sales territory will include the west north central states with headquarters in Omaha. Prior to the Presteline appointment, Wise was a regional manager for the Eureka Division of the Eureka Williams Corp.

Charles E. Wise

5 of 6 Omaha Families Are Refrigerator Owners

OMAHA, Neb.—Eighty-four and a half per cent of the 82,826 families in Omaha and Council Bluffs, Iowa, on the opposite shore of the Missouri River, own mechanical refrigerators, according to the fourth annual consumer analysis survey conducted by the Omaha World-Herald.

Buying habits and brand preferences are revealed by a sampling of 3.7% of the total family population in the area, based on four rental groups of which the highest paid \$50 and up per month, and the lowest less than \$30.

Range of refrigerator ownership spreads from 95.3% in the highest rental bracket to 62.9% in the lowest.

Ownership of washing machines stands out, with 84% of the families polled reporting such ownership, or about equal to the national saturation point for electric washers.

Cooking ranges are found in 92.4% of the homes, although this figure is down from the 97% mark shown in the 1945 survey. Gas ranges have gained percentage while electric ranges have dropped.

Home freezer ownership is confined mostly to the highest bracket, with only 1.3% of all families owning such units. Electric ironers are owned by 9.7%. Vacuum cleaner ownership is 72.5% as against 74.2 the preceding year.

Sale of Electricity Rises 29% for Year In Nashville

NASHVILLE, Tenn.—Sales of electricity for residential use in Nashville during the fiscal year ending June 30, 1948 increased 29.58%, J. E. Carnes, general manager of the Nashville Electric Service, announced.

Carnes also reported that annual kilowatt-hour consumption per family rose from 3,166 kwh. to 3,819 kwh., or a gain of 653 kwh. This he compared to the national average of 1,479 kwh. (as of March 31, 1948), a gain of only 121 kwh. over the preceding 12 months.

Carnes said that the utility had added 6,896 residential customers to its lines during the year.

He asserted that electrical appliance sales for the 12 months, as reported by dealers and distributors totaled \$10,767,563. Major appliance sales were as follows:

Appliance	Units	Dollar Value
Home freezers	307	\$ 95,170
Refrigerators	7,298	1,997,480
Ranges	6,051	1,452,240
Water heaters	4,873	438,570
Air conditioners	375	210,000
Clothes washers	8,700	1,740,000
Clothes dryers	120	36,000
Ironers	1,600	224,000
Dishwashers	600	180,000
Vacuum cleaners	6,500	390,000
Commercial refrigerators	250	225,000
Water coolers	300	75,000

PRECISION · PERFORMANCE · PERMANENCE

Refrigeration products bearing the Larkin insignia may be depended upon to function flawlessly. Originator of the patented Cross Fin Coil, Larkin also installs the same exacting quality in Humi-Temp Forced Convection Units — Bare Tube and Zinc Fused Steel Plate Coils — Instantaneous Water Coolers — Air Conditioning Units — Evaporative Condensers — and other mechanical facilities for efficient commercial and industrial refrigeration.



LARKIN COILS 519 MEMORIAL DRIVE · S.E. ATLANTA · GEORGIA

REFRIGERATION AND AIR CONDITIONING UNITS · PARTS · TOOLS · SUPPLIES

GOOD NEWS FOR AIRO CUSTOMERS!



We now stock UNIVERSAL COOLER hermetic and open type condensing units and genuine UNIVERSAL COOLER parts. Our Fall catalog 48-B will show the UNIVERSAL COOLER line.

Do You Have Our Catalog 48-A?

Write on Your Letterhead

Wholesale Only

AIRO SUPPLY CO.
2732 N. ASHLAND AVENUE · CHICAGO 14, ILL.

Pays for Itself in Food Savings

PAK-A-WAY HOME FREEZER

TRADEMARK REGISTERED

THE WORLD'S Finest HOME FREEZER product of Schaefer's experience in building low temperature cabinets since 1929.

Sturdy latch of exclusive Schaefer design is equipped with built-in door lock.

On PAK-A-WAY "12" and "18" two insulated doors may be opened individually, thus providing convenient tabletop working space while exposing only part of interior at one time.

Counterbalanced doors afford easy access—stay open in any position. Exclusive Schaefer hinge. Tension easily adjusted.

Three patented easy-to-empty ice cube trays in convenient wire holder. Contain 48 cubes—approximately four pounds of ice. Extra equipment.

Removable wire baskets, interchangeable, provide flexibility in storing food systematically and easily. Extra equipment.

Five inches of insulation sealed against air and moisture. Cabinet exterior finished in sparkling white, baked, Dulux enamel.

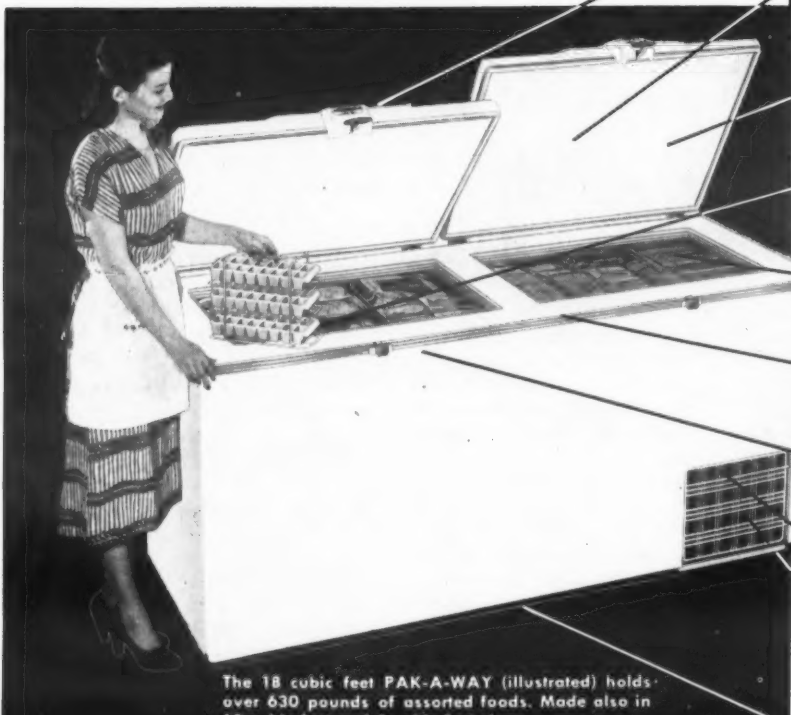
Smart, gleaming metal trim.

Automatic temperature control, adjustable for storage or fast freezing.

Battery actuated alarm automatically rings bell in event of power or mechanical failure.

Each PAK-A-WAY equipped with pull-out type hermetically sealed condensing unit. Needs no oiling. Just plug in for satisfactory operation.

Recessed toe space at base provides easy access to foods.



The 18 cubic foot PAK-A-WAY (illustrated) holds over 630 pounds of assorted foods. Made also in 12 cubic foot and 6 cubic foot sizes.

SCHAEFER, INC.
MINNEAPOLIS 1, MINN.

DEPT. P-801

Please send us complete details regarding dealership distributorship for Pak-A-Way Home Freezers.

My name.....

Firm.....

Address.....

City.....State.....

Schaefer

MINNEAPOLIS 1, MINN.

HERE'S YOUR MARKET



Soda Fountains Are Sweet Prospects For Profits

THAT colossal concoction—the jumbo-size, super-duper soda—has helped make fountains a national institution. The growing demand for such delicacies, from young and old alike, makes a soda fountain an increasingly profitable investment for many types of retailers and other businessmen—who, in turn, constitute a market of unusual potential for the alert Supermetic dealer.

Right in your own community, you'll find lots of ripe prospects for new installations. Super-markets, clubs, schools, variety stores, drug stores, department stores, and others are all interested in the profits to be reaped from soda fountain sales—and in the additional store traffic created by such an installation.

The market for replacement, too, is immense. Estimates indicate more than 100,000 soda fountains already in service. Many of these are ready for repair, replacement, or modernization. List the present and potential owners of soda fountains in your territory. They are real sales prospects.

Most soda fountain jobs turn out to be multiple-unit installations. Fountains today require ice cream storage, icing compartments for storing bottled drinks, frozen food compartments, and other refrigerating cabinets.

And here the Servel Supermetic dealer has a distinct sales advantage. For in the Supermetic line he has units adaptable for every refrigerating requirement—units that can be exactly fitted to the job without danger of over-loading. Over twenty-five years of leadership in the refrigeration field have given Servel a consumer acceptance that makes sales easy. Supermetics are dependable, economical to run. Installation costs are low. They offer the compactness so vital in these installations, as well as ease of accessibility for any necessary adjustment.

Today, get full information on sizes and types of Servel Supermetics. Write for free illustrated booklet, "Servel Supermetic." Address Servel, Inc., 2809 Kentucky Avenue, Evansville 20, Indiana.

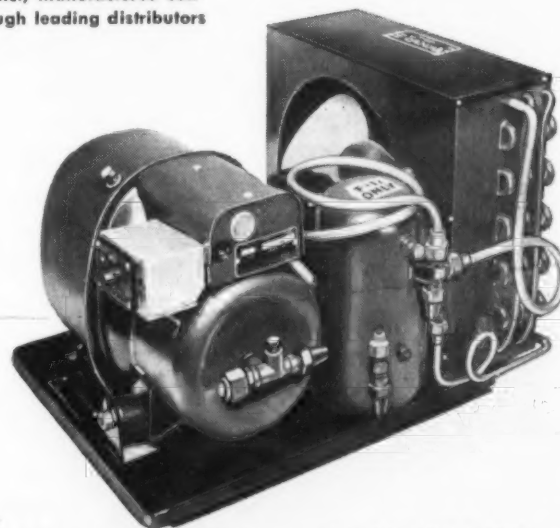
Servel Inc.

ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA



"Everfrost" Imperial Fountainette Model EF-20, courtesy of Anderson & Wagner, Inc., 8701 South Mettler Street, Los Angeles 3, California, prominent manufacturers of soda fountain and luncheonette equipment. The Electric Refrigeration Division of Servel, Inc., manufactures condensing units only, available everywhere through leading distributors and fixture manufacturers.

Servel Supermetic Model H2B, air-cooled, twin-cylinder, 1/2 HP hermetically sealed condensing unit widely used for fountain applications and for many other types of commercial fixture requirements. Fractional horsepower units are offered in 1/4, 1/2, 3/4 and 1 HP sizes. Larger models, both air- and water-cooled, are available through 3 HP. Where odd-frequency or direct current is required, a line of Servel air-cooled belt-driven units is available.



Eastern Conference Space Reservations--

(Concluded from Page 1, Column 3) ing a velour backdrop will be supplied without charge by Rema. In order to be sure that those attending may have room enough in the booths to see the exhibits, exhibitors are limited to one table and three straight chairs.

Admission to the exhibition halls will be by badge only. Because of limited show area in booths, not more than three representatives from each exhibiting company will be permitted to man the booths of an exhibitor at any one time.

No exhibits of any kind will be permitted in hotel rooms. All exhibits must be confined to educational exhibits designed to demonstrate principle of operation only—not superiority of product. This means of course, that the ordinary commercial display shouting the superiority of the exhibitor's product is out, explains Rema.

Educational exhibits will include photos, drawings, slides, silent films, cutaway models, loosely assembled models, sectional, and operating models.

Complete units such as condensing units, compressors, display cases, reach-in boxes, freezers, etc., will not be permitted. However, partially assembled or sectional models of such units which show how they are constructed, how they operate, or how they can best be serviced are considered educational and are acceptable.

Exhibitors may provide catalogs, engineering service bulletins, guarantees, or instruction sheets.

In order to keep within the broad

scope of a truly educational exhibit uniform name signs will be provided without cost to each exhibitor and all other signs dispensed with unless it is a part of the regular nameplate on the product.

As exhibits are erected, they will be reviewed by the Educational Committee which reserves the right to remove any exhibit, or part of an exhibit, not in keeping with what is considered to be educational.

Registration, Table Space Fees Changed for Fall Illinois RSES Meeting

SPRINGFIELD, Ill.—Registration fee for the eleventh annual meeting of the Illinois Association of Refrigeration Service Engineers Society has been changed from the \$10 previously announced to \$8, according to F. B. Frazee, educational chairman who arranged the program.

There has also been a change in the fee for table space, which is regularly made available to manufacturers and parts wholesalers for displays. Originally announced as \$6, this charge has been increased to \$8.

Regular sessions of the convention are scheduled for Saturday afternoon and Sunday morning, Sept. 25 and 26, at the St. Nicholas hotel here. A question-box session will be held Friday evening, with the annual banquet planned for Saturday evening.

Hotpoint Dishwasher Output Rises--

(Concluded from Page 1, Column 2) received the concentrated training instruction they will carry the program through distributor salesmen to the dealers during a period of 90 days beginning Sept. 1. The specialists will then work with distributor whole-salesmen in a series of two-day presentations to reach the dealer level. The first day the wholesaler will be presented the program by the specialist, to be followed on the succeeding day by the wholesaler's presentation to the dealer.

Citing a study of population characteristics prepared by Hotpoint's market research department, Ralph Cameron, manager of the department, said that "the remarkable growth in family incomes over the last 10 years has opened a whole new market for the dishwasher which is gaining unprecedented acceptance as a standard commodity for servantless living."

The greatest market for the dishwasher lies in the family income groups of \$5,000 or more, the official said, adding that in 1939 this income bracket represented only 1.6% of all families. In 1947 this group had increased to 21%, or a total of 8.8 million families.

"This increase is a significant consideration for the dealer who is establishing himself as dishwasher headquarters in his community," Cameron said. "Added to this are other equally significant factors such as the increase in population, the increase in the number of women employed outside the home, and the decrease in the number of persons employed in domestic service. These

factors add up to a sharply defined conclusion: the greatest demand in the history of the industry for complete mechanization of the home."

In 1940, the official said, there were 2.2 million people employed in domestic service. By 1948 this figure had dropped to 1.8 million, a 19.3% decrease, equivalent to 433,000 fewer servants. Truesdell interpreted this decrease to indicate a definite trend toward greater self-sufficiency.

In the years before the war when servants were plentiful, many homemakers considered the electric dishwasher and the Disposall as luxury accessories for their households, the official told the meeting. With the number of women employed in the nation's business, professional and labor force showing a steady increase, there has been a substantial upswing in the homemaker's demand for electric appliances which make possible "servantless living." The dishwasher and Disposall are no longer luxuries, but necessary commodities such as the refrigerator," he said.

In 1940 there were 13 million women employed, or approximately 24% of all women eligible to work. In 1948 the number of employed women had grown to 17.2 million, or more than 28% of the total eligible to work. This 32% increase in an eight year period has been accompanied by a growth in the number of married women employed.

From 1940 to 1947 the number of married women employed increased from five million or 36% of the total employed, to 7.5 million, or 46% of the total. Breaking these figures down, Cameron said that there are more married than single women working today. He cited these figures: 7.5 million, married; 6.2 million, single; and 2.5 million, widowed or divorced.

At the same time, the official noted, there was a 28% increase in the number of husband and wife teams working during the period 1940-1948, while in the same period the increase in the number of households was only 12%. The latest available figures indicate that in April, 1947, there were 5.7 million households (14% of total households) in which both husband and wife were employed. This was an increase over 1940 of 2.2 million households.

"These figures indicate that conditions are now ripe for aggressive merchandising of the dishwasher and the Disposall," Cameron told the Hotpoint field specialists.

St. Paul Survey--

(Concluded from Page 1, Column 3) fruit or 34,980 families to 70,146 non-user families.

Over 38% were buyers of frozen vegetables as compared with 61.5% non-buyers or 40,450 families to 64,676 families.

Consumer preference for frozen fruit ran to Birdseye with 54.9% to Booth's 19.3% and Polar brand's 13.5%. Honor brand was fourth with 4.9% use. The same order was true of frozen vegetables with following percentages: Birdseye, 54.6%; Booth's, 17%; Polar, 14.4%; and Honor, 9.1%.

Polling the frozen food dealers on distribution of products at retail level in comparison with consumer demand, Booths had 42.9% dealer distribution to Birdseye's 15% and Polar's 11.4%. Although Birdseye led in consumer preference for vegetables, it had poorest distribution among dealers with only 19.3% compared with Booth's 32.9%, Polar's 22.9% and Honor Brand's 29.3%.

In answer to the question "Do you buy fresh frosted poultry foods in packages?" 10.8% answered "yes" compared with 89.2% "no" replies. A total of 20 brands were listed by those who did purchase these foods with Arvilla, Swanson, Swift, Birdseye, Booth, Armour, Land O'Lakes, and Polar, in that order, listed as consumer preferences. Arvilla brand got 34.6% acceptance to Swanson's 25.6% and Swift's 10.8%.

Nineteen per cent of St. Paul's 105,126 families said they purchased fresh frozen fish in 32 different brands. But 80.9% said they did not. Booth led the field in this classification with 57.9% use compared with Birdseye's 11.5% and 22.5% said they didn't know what brand they used. Booth led dealer distribution with 42.9% to Birdseye's 5%.

Forty-six per cent of those queried (3,000 families—an accurate cross section of St. Paul population of 420,000) were in the \$50 and above rental bracket, 22.5% were in the \$40-\$50 group while 17.4% were found in the \$30-\$40 bracket and 14.1% in the under \$30 rental group.

Sales Drop Brings Bowser Loss

TERRYVILLE, Conn. — Bowser, Inc. has reported a net loss of \$491,646 for the first six months as compared with a net profit of \$879,045, or \$1.21 a common share, for the same period last year. Net sales dropped from \$15,998,210 for the first half of 1947 to \$10,452,345 this year.

EATON PERMANENT MOLD GRAY IRON CASTINGS



for
Refrigeration Parts

Free machinability, dense non-porous structure, freedom from leakage under pressure, freedom from distortion, and ability to take a mirror finish—these qualities recommend Eaton Permanent Mold Gray Iron Castings for many critical parts in refrigerator, air conditioning, and domestic appliance production.

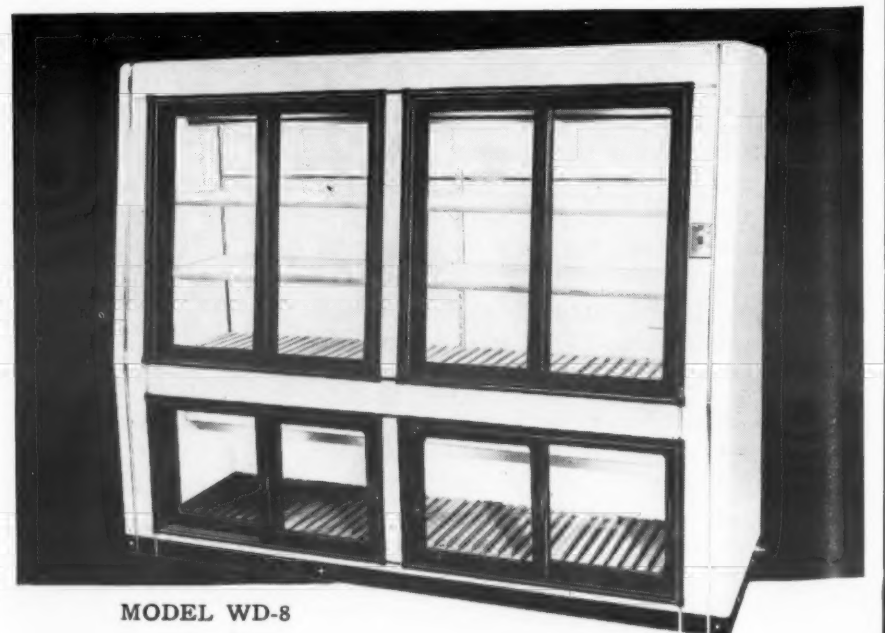
Eaton Foundry Division engineers will be glad to discuss the application of Eaton Permanent Mold Gray Iron Castings to your product. Send for your copy of the illustrated booklet, "A quick Picture of the Eaton Permanent Mold Process for Producing Gray Iron Castings".

EATON

MANUFACTURING COMPANY
FOUNDRY DIVISION

9771 French Road - Detroit 13, Michigan

SHOW More! SELL More!



MODEL WD-8

with "COLD-IN" DAIRY WALL CASE
VITREOUS PORCELAIN INTERIOR AND EXTERIOR

- Adjustable shelves • Warp-proof hard rubber doors and jambs • Available with hinge doors on bottom • Fluorescent lighting throughout.



YOUR KEY TO BETTER REFRIGERATION

FRANCHISES AVAILABLE
WRITE FOR COMPLETE
INFORMATION

COLDIN CABINET CO., Inc.

2800 Webster Avenue, Bronx 58, N. Y. Tel. SEdwick 3-5833

Don't Plan To Sleep:

Chicago's Hotel Men Seek Another Change In Dates for Mart

CHICAGO—The Greater Chicago Hotel Association doesn't like the new Winter Homefurnishings Market dates and has made a request that the date for the opening of the 1949 Winter Market be shifted to Jan. 5 (announced date for the market is Jan. 10 through 21).

The hotel men say that because of the "sudden" change in the mart dates they will be in a position to accommodate only a "very limited number" of the regular Furniture Market customers during the new period of Jan. 10 through 21.

Chicago hotel managers declare that shows and conventions are booked two years in advance and that the switch with only six months' notice will result in a "jamming" of the hotel facilities during the Jan. 10-21 period.

The letter from the hotel association urging a switch to the Jan. 5 opening date is in part as follows:

"The Greater Chicago Hotel Association sincerely regrets that because of the recent and sudden change in dates for the Furniture Market most hotels will be in a position to accommodate only a very limited number of the regular Furniture Market customers during the new period of Jan. 10 through 21, 1949.

"For several years the winter market has opened on the Monday after New Year's Day, while the summer market has opened the first Monday after the Fourth of July. In view of this situation Chicago hotels have always refrained from booking other meetings, shows, or groups during the first, or heaviest week of the furniture market, when your industry makes its greatest demand for rooms from Chicago hotels.

"Now, the recently announced dates create a situation which will prove critical as the majority of hotel association members are already committed to other groups, and will be unable to supply the room necessary to accommodate furniture buyers and exhibitors.

"When the hotel association was notified of the change of dates, a suggestion was made to the Joint Furniture Market Dates Committee to withhold a change of dates until 1950. Were this done, the lapse of time then would afford Chicago hotels a greater opportunity to effect a more suitable shift in events scheduled. We also suggested advancing the new 1949 dates for opening to Wednesday, Jan. 5, when Chicago hotels would be able to care for more of their regular furniture customers.

"We want you to know this situation has already caused us no end of concern and there is nothing we can do to gather sufficient rooms in Chicago hotels to insure successful housing of furniture people during the week of Jan. 10, 1949. Hotel records show that better than 90% of hotel rooms are taken by furniture people during the first week of the market, and next January the second week selected, starting the 17th, is completely sold out."

Hope for Repeal of 'Some' Excise Taxes Seen by Rep. Knutson

WASHINGTON, D. C. — Excise taxes that are discouraging consumer purchases of certain articles may be slashed when the 81st Congress convenes.

This prediction came from Rep. Harold Knutson, who as head of the House Ways and Means Committee, has a great deal to do with the framing of Federal tax policy. While he couldn't determine at this early date just where the cuts would be made, he estimated that the amount of reduction might be something like \$800 million.

Knutson figures that the most logical place for slashing is "in the case of those taxes where the rates in effect are operating as a resistance to the purchase of articles."

He cautioned the public, however, not to expect drastic changes in the tax system since income and excise taxes play vital roles in the government revenue program.

Who Will Foot Bill For Pre-Packaging?

DETROIT—Pre-packaging, generally conceded to be a boon to the food-selling industry, has run up against a snag. For growers, shippers, and grocers are currently haggling over who's going to foot the bill.

Naturally, the shippers feel the retail food storemen should pay the cost of pre-packaging. But just as naturally, grocers feel a minimum of \$5,000 per packaging machine is too much; shippers, they say, should take on that expense.

Meanwhile, the men who make the packaging machines bide their time in hopes that the argument will soon be settled.

1 Gal. with Each Freezer

BUFFALO—The Appliance Center of E. W. Edwards & Son department store here boosted its sales of home freezers by offering a gallon of ice cream and 77 packages of frozen foods free with each freezer purchase.

Larrabee Represents Ebco In Far West

LOS ANGELES—A. R. Benua, president of The Ebco Mfg. Co., has announced the selection of Duane R. Larrabee, 8901 McConnell Ave., Los Angeles, as the Pacific Coast district sales manager for Oasis and Kelvinator water coolers.



D. R. Larrabee

Larrabee's territory will include Washington, Oregon, California, Nevada, Alaska, and Hawaii. He also represents the Herschede and Revere Clock Co. He is a veteran of many years' experience in the selling field.

Before becoming affiliated with Ebco, he was with the William R. Whittaker Co., manufacturer of aircraft valves and photographic equipment; and later with the Stromberg-Carlson Co.

100-Package Giveaway Boosts Freezer Sale

ATLANTA—The sale of 12 home freezers and the acquisition of a bulging prospect list during a recent week long promotion of Philco home freezers prompted the W. T. Grant department store here to try it again.

The second promotion was scheduled for the last four days of the week following the first sale.

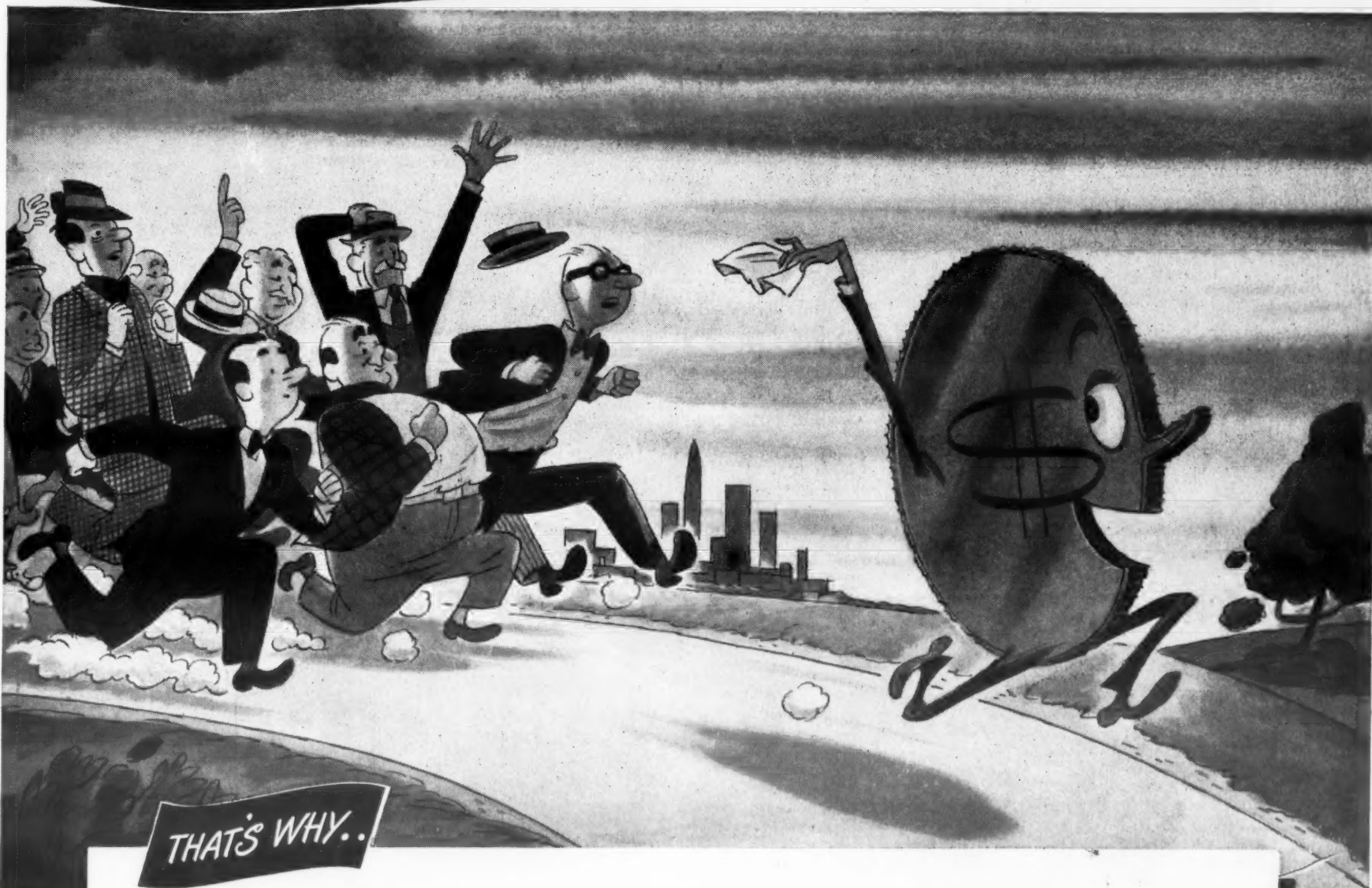
Giving purchasers 100 packages of frozen food, valued between \$40 and \$50, drew a strong response, according to store officials.

The promotion also featured processing, wrapping, and freezing demonstrations twice daily with each person attending given a chance to win a Philco freezer.

Granted 50-Year Charter

HOUSTON, Tex.—A 50-year charter of incorporation has been granted Pappas Refrigeration Co. Capital stock was listed at 5,000 shares no par value. Incorporators: George H. Pappas, James H. Pappas, and Pete H. Pappas.

TOO MANY DEALERS MEAN TOO LITTLE PROFIT!



Frigidaire limits the number of its dealers to protect the profit potential of all!

How thin can you spread a dollar?

Frigidaire has carefully refrained from jeopardizing the profit potential of Frigidaire dealers. Whereas total industry dealerships have more than doubled since prewar, Frigidaire dealerships have been increased only slightly; and only in those localities where new potential justified.

This policy has been deliberately pursued, even in the face of the larg-

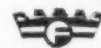
est production in Frigidaire history, and thousands of unsolicited applications for Frigidaire dealerships. For Frigidaire recognizes that it is unjust to divide a profit dollar among too many dealers.

Thus it is stated as one of Frigidaire's Fifteen Fundamentals:

"Have in each market the proper number of quality dealers to obtain Frigidaire's proper share of available

volume, and at the same time to provide a profitable potential for each Frigidaire dealer and his salesmen."

Frigidaire is keeping faith with its dealers! Further proof that you can Depend on Frigidaire to do things right.



You're twice as sure with two great names

FRIGIDAIRE

MADE ONLY BY

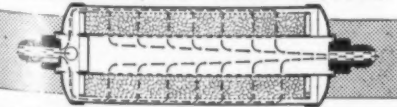
General Motors

WANTED REFRIGERATION SERVICE MANAGER:

Nationally known large commercial refrigerator manufacturer in middle west has an opening for a service manager. Give qualifications and salary desired.

Box 2908, Air Conditioning & Refrigeration News

REMCO HEAVY-DUTY "CROSS-FLO" DRIER-FILTERS AND FILTERS

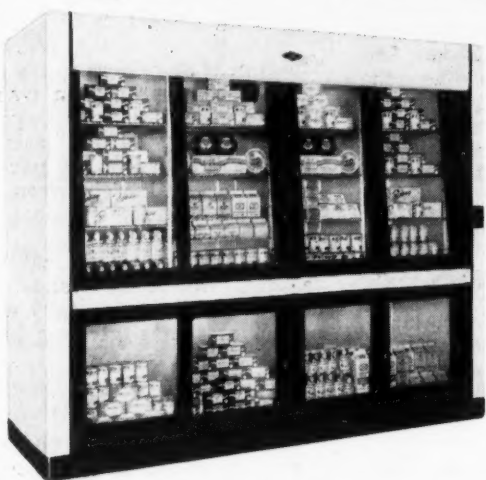


UNIQUE "CROSS-FLO" DESIGN eliminates roiling, slugging and packing of drying agent, which eliminates pressure drop, clogging, poor refrigerant control performance and expensive call backs—permits installation in liquid line, suction line or between refrigerant control and evaporator.

Ask Your Wholesaler Or Write

REMCO, INC., ZELIENOPLE, PA.

the refrigerator, with fool-proof eye appeal...



Model 635 Illustrated

Feather-touch sliding glass doors have two panes with dehydrating element between, which eliminates moisture. Full-sweep vision and ease in self-service usage characterize it as the most modern type for merchandising dairy products.

No fogging of glass doors to mar clear vision in the Warren Model 635 Refrigerator for dairy products!

FEW DEALER FRANCHISES OFFER SO MUCH. Completeness of varied units such as Model 635, up-to-the-minute development of new types, mechanical perfection and sturdiness, beauty in styling... all these combine to make the Warren line attractive and profitable. An inquiry addressed to Dept. 205 will bring full details.



The WARREN COMPANY
INCORPORATED
905 MEMORIAL DRIVE, S. E. ATLANTA 1, GEORGIA

INSIDE DOPE

by GEORGE F. TAUBENECK

(Continued from Page 1, Column 1)

As a matter of fact, the financial and economic policies of the past 20 years have brought us to the place where we might just as well define national income as total expenditures. For, what is income to some individuals or groups represents expenditures by other individuals or groups.

REAL Money

More than 40 years ago when I was a kid in high school I clerked in a store after school and on Saturday. And, believe it or not, we created and circulated the soundest money that was ever used. In would come an old farmer and his wife with hog meat—lard—butter—eggs—smearcase, etc. He wanted to trade his farm produce for city commodities or other things he needed. We said: "Sure—we're glad to get your stuff," and we issued a credit memo or a warehouse receipt saying, "Farmer Jones has deposited with us \$10 worth of hog meat, butter, and eggs, and he or the bearer of this receipt is entitled to \$10 worth of any goods we have in our store."

So the farmer—through our credit memo—created good sound money backed up by goods produced and brought to the market.

One of our troubles today is that people have been getting warehouse receipts and credit memos without

putting any goods in the warehouse.

A "smarter" idea has been developed, namely: all you have to do is to pass out a lot of "dough" to people and everything will be all right. The trouble is when you pass out "dough" that doesn't represent goods or services produced, you just automatically increase prices. And no political or economic demagogue can change this, any more than he can suspend the law of gravity or make water run up hill. But a lot of them are going to try to do it the next 12 months.

Now, let's avoid 15 and 20 dollar words and a lot of statistics and get down to several very simple and elementary principles using 5 and 10 cent words that we can all understand.

Useless Multiplication

Suppose on Jan. 1, 1941, some governmental dictator said that effective at midnight everybody's wages, salary, or other income, would be doubled. At eight o'clock the next morning this would seem fine, wouldn't it? Except that there wouldn't be an extra loaf of bread, an extra pound of meat, an extra pair of shoes, or a suit of clothes. There wouldn't be an additional automobile or refrigerator to spend the money on. And what would happen? Why, in a short time prices would double because people received and spent twice as much money with no increase in goods to spend it on.

Now this is exactly what has happened over a period of years, not just over night. For in recent years, "money" has come to be regarded as income—whereas real income consists of more and better goods at lower prices. Of course, a lot of these nickels are wooden nickels; but after all, a lot of us have been wooden-headed. So maybe the two go together.

Anyhow, today the national so-called income is largely determined by what people spend.

- What consumers spend
- What business spends
- What Government spends
- What foreigners spend.

During the past 16 years—particularly since 1940—the Government has increased the money supply 'way beyond the supply of goods and services. The policy of debt-financing the war has practically monetized the debt, and has the same effect as though we had run the printing presses and printed quite a few billions of paper money.

In 1943, 1944, and 1945 from 20 to 30 billion dollars of "savings" were registered in this country right in the middle of the war. And these savings were largely baloney savings which should have been taxed away—for they became a part of the money supply and they had behind them no real tangible valuables whatever. All they represented was a wrecked tank, a battleship at the bottom of the ocean, an airplane shot down over Germany, the fragment of a shell which exploded a Japanese magazine. They did not represent real savings.

These war savings represented total destruction, not construction. They represented goods destroyed, not goods produced. But they really became part of our potential money supply.

Then the postwar wage-cost-price

spiral started a new upward trend which is about to be accelerated by the recent third round increases.

Now, for a few minutes, let's look back to prewar days in 1940 and see where we were then compared with the year 1947 and early 1948.

TABLE A

Comparisons in billions of dollars

	1940	1947
National Income	81.3	203.0
Consumer Disposable Income	75.7	175.0
Consumer Expenditures ..	72.1	164.0
Farm Net Income	4.9	18.0
Weekly Mfg. Earnings ..	\$25.	\$49.
Total Civilian Employment (000,000) ..	47.5	59.0
Corporation Dividends (Billion \$) ..	4.0	6.0
(% of National Income) ..	4.9%	3.5%

And, already in 1948, the increases over 1940 are very much sharper than they were last year.

TABLE B

Wholesale and Consumer Prices

	1940	1947
Wholesale Prices Index	78.6	151.8
All Commodities	67.7	131.3
Farm Products	71.3	168.7
Other Products	83.0	145.1
Consumer Prices Index	100.2	159.2
Food	96.6	193.8
Apparel	101.7	185.8
Rent	104.6	111.2
Fuel, Elec., etc.	99.7	121.1
Housefurnishings	100.5	184.4
Miscellaneous	101.	139.9

TABLE C

Expenditures in 1947—and also recent increases in buying power which are only now beginning to take effect.

	1940	1947
What Consumers Spent	72.1	165.0
What Business Spent (Gross Private Domestic Investments) ...	13.0	30.5
What Government Spent	13.9	28.0
What Foreigners Spent In U. S. A.	1.5	8.8

Recent 1948 Increases In Buying Power

Now, these 1947 figures represent the average for the entire year. Today they are very much higher due to:

1. Late 1947 and third round wage-salary increases in 1948 already becoming effective in market buying power.
 2. Continued high farm income.
 3. Increases in capital expansion expenditures in 1948.
 4. Increases in building expenditures compared with 1947.
 5. Expanded buying power due to Armament Expenditures now being gradually increased.
 6. Personal income tax reductions.
- These are sizeable increases coming at a time when:
- a. Industry already is operating at capacity.
 - b. The labor force is fully employed with more than 61 million persons at work.
 - c. There is a shortage of materials

Where Are We Headed?

Now, this is no forecast, but let's see where we are and where we might go the next six or 12 months—subject to factors that no one can foresee, including Uncle Joe, labor strikes, buyer strikes, or the exhaustion of income of people who have not had big raises.

We must remember that many workers are not members of the farm (Concluded on next page)

"How do you figure costs—

WELL,
IT WAS A BARGAIN
ONCE...

—first cost or upkeep?"

asks the Lehigh Team

BLU-COLD performance is showing buyers how to make that deflated dollar BUY MORE!

The man who first said "You'll remember the quality long after the price is forgotten" is hereby elected an honorary member of the Lehigh Team! Today, with well over a hundred thousand BLU-COLD units of all sizes in operation, the Lehigh Team can say without fear of contradiction "We talked quality—we stressed honest ratings—we pointed to performance—and the records back us!" Now—when your dollars have to buy the MOST—it pays to buy the BEST.

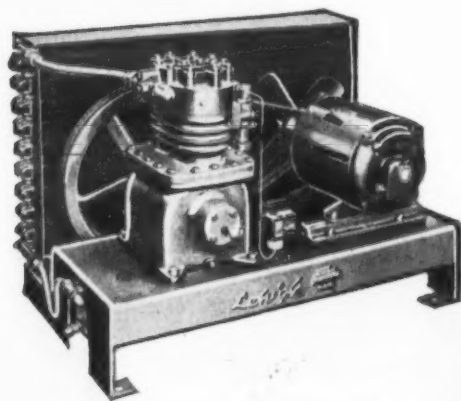
110 MODELS NOW AVAILABLE

For High, Medium, or Low Temperature Freon-12 or Methyl Chloride

- | | |
|---|---|
| ★ PACKAGED AIR COOLED
1/4 H.P. 1/2 H.P. | ★ STANDARD DUTY AIR COOLED
1/4 H.P. 1/2 H.P. 3/4 H.P. |
| ★ HEAVY DUTY AIR COOLED
1/2 H.P. 3/4 H.P. 1 H.P. 1 1/2 H.P. 2 H.P. | ★ HEAVY DUTY WATER COOLED
1/2 H.P. 3/4 H.P. 1 H.P. 1 1/2 H.P. 2 H.P. 3 H.P. 5 H.P. |
| ★ COMBINATION AIR AND WATER COOLED
1/2 H.P. through 2 H.P. | |

See general catalog for complete specifications

Lehigh Manufacturing Co.
PLANT: LANCASTER, PA.



Heavy Duty Air Cooled 1 1/2 and 2 H.P.

A

New! Improved!
CHARGING HOSES

● Made from heavy duty rayon reinforced neoprene hose. Exceptionally flexible and sturdy; will permit small radius bends, 36" lengths. Will withstand temperatures to -40 degrees F. and pressures in excess of 1000 lbs. per square inch. Low original cost and high refrigerant resistance means long time use and resulting economy.

Fine **PRODUCTS CO.**
185 N. WABASH AVE. • CHICAGO 1, ILLINOIS

Type A—Standard Type B—Quick-Coupler

B

PERSONALIZED SERVICE

CHASE

REFRIGERATION SUPPLY CO.

546-48 W. 119th STREET CHICAGO 28, ILL.

CONVENIENT
ONE-STOP
SERVICE

CHICAGO'S
OLDEST
SUPPLY HOUSE

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from preceding page)

or labor aristocracies, who are in the big money. We must recognize the fact that emotional, sentimental, or psychological factors are as important as economic factors; and that no one can forecast fear and pessimism or courage and optimism.

In 1940, consumers spent 72 billion dollars. Last year they spent 165 billion dollars—an increase of about 130%.

Now, how about goods to spend this vast amount of money on? Last year there was about only 24% more food produced in this country than in 1940, regardless of increased population and foreign relief. Industrial production increased about 48%. The total goods that people could spend their money on increased about 42%—after making adjustments for distribution, services, etc.

Now, the formula is simple (although it won't suit the experts).

In 1940:
100 units of money divided by
100 units of goods equals 1—or—
100 as a price or cost of living level base.

In 1947:
230 units of money expenditures
divided by
142 units of available goods equals
162 as a price level.

Actually, the Bureau of Labor Statistics produced a Consumers Price Index of around 160 for the year 1947.

During the first quarter of 1948 people have been spending money at an annual rate of 176 billion dollars, compared with 165 billion dollars in 1947. But now, on top of that, note that we are apparently getting an additional 18 or 20 billion dollars of consumers' buying power.

People recently have been cashing more "E" Bonds than they are buying. Credit and instalment sales are increasing. The Government surplus is being cleaned out. Fewer bonds are being taken away from the banks.

And it now looks like farm production in 1948 might be less than last year, while industrial production might be only 2% or 3% more than in 1947. Big fall corn crop won't mean extra meat, milk, or eggs for quite a few months yet. Nature doesn't work that fast.

So here are two possibilities for the next 12 months. Note we say possibilities.

a. Consumer Expenditures of 200 billion dollars would represent an increase of 178% over 1940. Available goods would represent an increase of 44% over 1940.

Now, 100 units of money in 1940 increased by 178% would give us 278 units of money.

And 100 units of goods in 1940 increased by 44% would give us 144 units of goods.

So now we have 278 units of money to spend and only 144 units of goods to spend it on.

Therefore:

278 units of money
= 193 as

144 units of goods
a possible price level.

We hope such a thing doesn't happen.

Today the Cost of Living Index is around 170.

b. Let's assume that consumers only spend 186 billion dollars and that farmers produce a little more food and industrial production improves somewhat.

Then we would have:
260 units of money

147 units of goods
177 Price Level

Now, many things can happen to change the picture, and no one can foresee them. But one thing you can't get away from—

"Expenditures divided by goods produced determines the price level and the cost of living."

And things are on the "up and up." As a nation we are gradually stealing

	1940	1947	A	B
A. Farm Production Index	100	124	118	120
B. Industrial Production Index	100	148	152	155
C. Weighted Farm and Industrial (Adjusted) (Note 1.)	100	142	144	147
D. Consumer Expenditures				
(1) In Billions of \$'s	\$72	\$165	\$200	\$186
(2) Index	100	230	278	260
Theoretical Economic Price Level (C ? L)				
D (2) ÷ C	100	162	193	177
This means Expenditures divided by Production, etc.				
Actual Dept. of Labor Cost of Living	100	160	?	?
1947 Actual Expenditures			165 Billion \$'s	
Last Quarter 1947—Annual Rate Expenditures			173 Billion \$'s	
First Quarter 1948—Annual Rate Expenditures			176 Billion \$'s	
Going Rate today approaching			200 Billion \$'s	

Note 1: Distribution—Services—and Rental Costs are considered in the adjustment.

the life-time savings of the older thrifty middle classes in America who have put their savings in life insurance and Government Bonds or other fixed dollar investments. They saved 100 or 90 cent dollars and are rapidly coming to 60 and 50 cent dollars. Some people call this legalized economic larceny.

What Might Happen to the Consumers Price Level

The accompanying summary gives the 1940 picture compared with 1947,

and possible trends the next six and 12 months, as shown by Columns A and B under 1948.

Conclusions

Market buying power looks strong, at least for the next six months—and possibly for a year—even though many people will have to downgrade their buying or be priced out of the market.

Where you have too much money and not enough goods you can only reduce prices by:

A. Reducing the money supply, or
B. Increasing production

Increased production will come slowly. Reducing the money supply too rapidly might result in a real depression rather than a corrective recession or adjustment.

It's better to fall down the stairs two steps at a time than to dive from top to bottom. Maybe we aren't smart enough to do this. If we permit another orgy of increased buying power which does not represent goods produced we might find ourselves on stilts 100 ft. high. And it's hard to get down from stilts that high without a prat-fall.

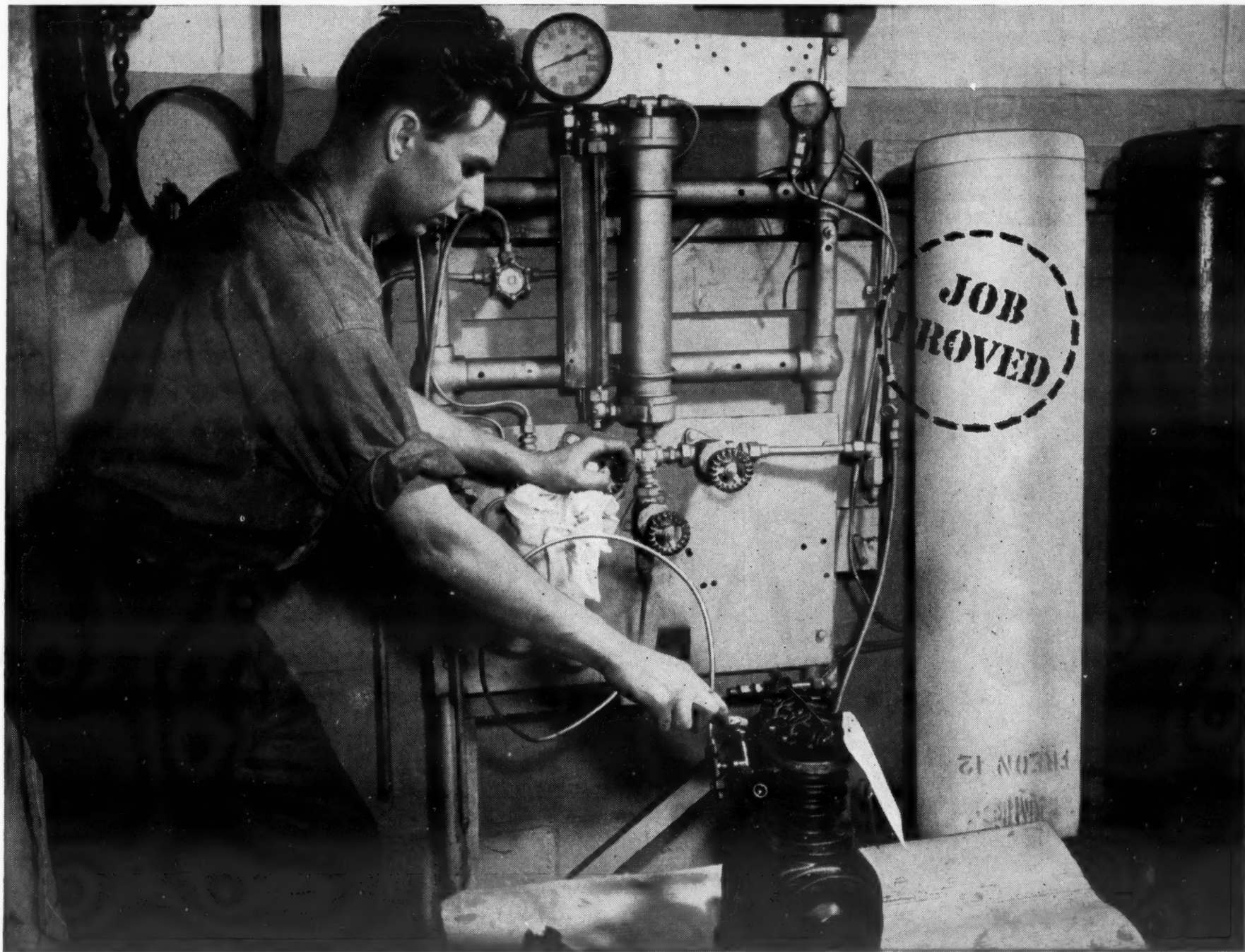
I wish we knew the answers. Personally, I do not and haven't met anyone yet who does. At any rate—things seem all right for the immediate future. Beyond that is an economic "iron curtain."

Americans have been accused of being a bunch of economic illiterates or morons.

Maybe this is right. It will be if a year from today people say—

"ANOTHER INFLATION HIGH-BALL PLEASE!"

God help us if they do.



NOTHING BUT THE BEST

Suniso Refrigeration Oils Are The First Choice of Reliable Refrigerator-Service Men

Good products are the keystone of business success. When you use Suniso Refrigeration Oils, you can be confident that you are using the very best that can be obtained.

Suniso Oils come in six different grades. They are characterized by unusually low pour-points, by high

dielectric strength (over 25,000 volts), by purity and high stability. They withstand chemical change when mixed with Freon or other modern refrigerants.

Suniso Refrigeration Oils are specially refined for the refrigeration and air-conditioning industry.

They are first choice with the manufacturers of such equipment. In fact, this industry probably uses more of Suniso Refrigeration Oils than the total of all other brands.

For handy tool-box card showing correct Suniso grades for different types of systems, write Dept. RN8.

SUN OIL COMPANY • Philadelphia 3, Pa.
In Canada: Sun Oil Company, Ltd.
Toronto and Montreal

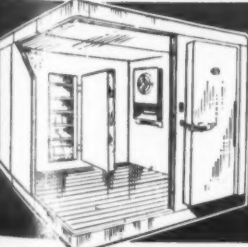
SUN PETROLEUM PRODUCTS

"JOB PROVED" IN INDUSTRY



RECO

TWO TEMPERATURE FREEZE COOLERS



Streamlined, Gleaming Aluminum Finish

Combines Generous Freezer & Cooler Space in One Economical Fixture.

Available in Wide Range of Sizes.

Illustrated Model 80-3TT
(REFRIGERATION ENGINEERING CORPORATION)
RECO PRODUCTS DIVISION
2020 NAUDAIN STREET, PHILA. 46, PA.

AN ADVANCED COURSE

In Refrigeration, Air Conditioning and Heating. Now taking enrollments for September 7 class.

Write for booklet.

DETROIT AIR
CONDITIONING INSTITUTE
4125 GRAND RIVER
DETROIT 8, MICHIGAN

for
eye-appeal
economy
performance

specify
Supremetaline



profit-wise dealers choose
the jolly mixer
for tavern—for home

IT'S NEW! Nothing else like it! The Jolly Mixer provides finger-tip facilities for mixing simple highballs or fancy cocktails.

IT'S ECONOMICAL! Rapid service saves time, all-in-one facilities save space! Ice cubes (20 lbs. per freezing!), bottles, fruit, sugar, utensils, towels, cutting board, bottle de-capper, refuse receptacle—everything in one place!

IT'S PRACTICAL! The Jolly Mixer is engineered to "mix" with other Supremetal underbar equipment and to mix drinks at the same time!

Write TODAY for catalog showing the complete profit-making SUPREMETALINE!



ALL-STEEL BAR AND BEVERAGE SERVICE EQUIPMENT

SUPREME METAL FABRICATORS, Inc. • BROOKLYN 11, N. Y.

Rink, Cooled by 3-Stage Unit, May Bring Big-Time Hockey to Cincinnati

SYRACUSE, N. Y.—A three-stage centrifugal refrigeration machine of 100-ton capacity to provide brine cooling at 9° F. for the new ultra-modern ice skating rink of Cincinnati Gardens Inc. in Cincinnati, will be supplied by Carrier Corp.

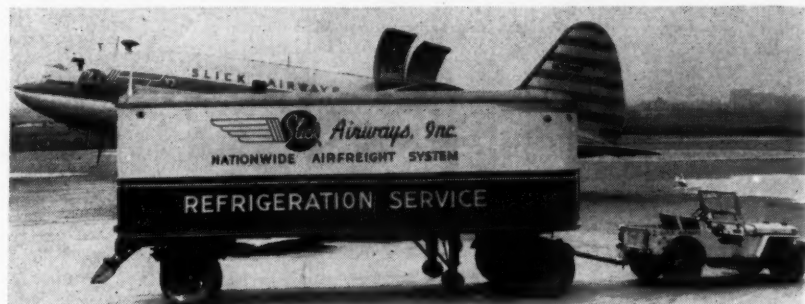
The Carrier centrifugal will directly cool calcium chloride brine for circulation through more than 10 miles of 1 in. pipe in the skating rink floor, which will be of monolithic construction.

Costing approximately \$2,000,000, the new rink will have a seating capacity for ice hockey of 11,000 people. Cincinnati Gardens Inc., holds a franchise in the American Hockey League and completion of the rink this year will bring top rank hockey to the Ohio city.

The floor area will be 200 ft. long by 85 ft. wide, with an overhead clearance of 72 ft. to the trusses, affording clear vision to all spectators. An innovation in design is provision for a deep-iced runway, 24 ft. long by 40 ft. wide, at one end of the floor to provide ballet groups and others skating in large ice shows with a running start so they can be in full motion when first seen by the audience.

A. M. Kinney Inc., are the architects and engineers, and Bevington, Taggart & Fowler are the rink designers. The latter firm controls the M. R. Carpenter monolithic floor patents. The B. A. Waltermann Co. is mechanical contractor.

Slick Buys Trailers for Airfreight



One of the truck-trailers in use at a Slick Airways airfreight terminal.

Air Conditioned Trailers Keep Perishables At Constant Temperature Summer and Winter

SAN ANTONIO, Tex.—Purchase of four large, mobile air conditioned truck-trailer units to supplement permanently constructed facilities its terminals have provided Slick Airways, the nation's largest airfreight system, with complete equipment for protection of perishables in transit, President Earl F. Slick has announced.

"We have now provided system-wide protection for flowers, fruits, vegetables, pharmaceuticals, and seafood," Slick said, "not only against the heat in summer months, but against cold in winter, since all of our mobile and permanent installations can be heated as well as cooled to any desired temperature."

Final step in the transcontinental and north-south airfreight line's program of perishable protection was the purchase and placing into service of four 26-ft., insulated Fruehauf

refrigerated trailers with automatic cooling-heating units at its New York City-Newark, Philadelphia, Chicago, and St. Louis airfreight terminals to supplement permanent units at Detroit, Dallas, and San Antonio.

Amplified protection in the air by plane cooling and heating systems, the proper preservation of perishable traffic on the ground during short intervals while awaiting movement by air, delivery to consignee, or transfer to other surface or air carriers is of paramount importance in the hauling of flowers, produce, seafood, and certain drugs, Slick asserted.

"We feel that in the completion of our perishable-protection program," Slick concluded, "we have taken a far-reaching step toward perfecting the type of efficient airfreight service to which the shipping public is entitled."

Cheyenne Housewives Flock to 2-Day Grand Opening Of Supermarket Featuring 100% Self-Serve Meats

CHEYENNE, Wyo.—Housewives here have evinced their approval of 100% self-service meats by flocking to the new Sav-Mor Supers, Inc., recently opened by Joe Hubbell, Sterling Case, and Ben Hubbell.

The new super has 33 ft. of reach-in Hill cases for the meat department in addition to vegetable display cases designed for use with shaved ice, and refrigerated cases for dairy products.

The market, called "the store of tomorrow," was planned and equipped by the Gordon Lozier Co. of Omaha, Neb. A Toledo-equipped cutting room is directly off the walk-in coolers,

and all types of meats are pre-packaged in cellophane. A meat cutter also will be on duty at all times to prepare cuts of meats for patrons who don't see what they want in the display cases.

A special package contains four kinds of assorted cold cuts to be retailed as "Sav-Mor's Variety Package" and sell for 48 cents. It weighs a pound.

The supermarket was publicized by a "preview" opening of "the store of tomorrow," followed by a two-day grand opening, during which free refreshments were served.

CUT LABOR COSTS With "P-H" Refrigeration Cases



Beverage Cooler
8 Ft. Model

DRY BEVERAGE COOLERS . . .

The new Puffer-Hubbard beverage coolers with Roll-Away doors permit faster service—advanced engineering features maintain correct temperatures at lower cooling costs—100% porcelain exteriors are easier to keep clean and longer lived. Available in remote models—6', 8', 10' sizes or self-contained models—6', 8' sizes.

DOUGH RETARDING CABINETS

Puffer-Hubbard Slo-Dough cabinets quickly pay for themselves in many ways. They permit larger batch mixes—eliminate left-overs, reduce time and cost in filling special orders—save night work. Exclusive Grad-U-Matic air conditioning provides correct temperature and humidity control—100% porcelain interiors and exteriors assure greater cleanliness and longer life. Available in 3 sizes.

Dough Retarding Cabinet

Write for
INFORMATION



PUFFER-HUBBARD
MANUFACTURING COMPANY

GRAND HAVEN, MICHIGAN EST. 1898

"The Mark of a Good Case"



KELVINATOR parts are priced right ...always right for the job!

You're right on every job when you use dependable parts and supplies from your Kelvinator Parts Depot.

You'll like Kelvinator's time-saving "one-stop" service . . . where you can choose from a complete line of refrigeration parts and supplies that are "tops" for quality—and competitively priced!

Stop in at your nearest Kelvinator Parts Depot some day soon. You're sure to find exactly what you want—and you'll like the fast, friendly Kelvinator service. Mail or phone orders handled promptly . . . Kelvinator, Division of Nash-Kelvinator Corporation, Detroit, Michigan.



GET YOUR COPY—New Handy Catalogue of Refrigeration Supplies—Here's the quick, easy way to buy refrigeration parts and supplies. All information and prices are grouped for easy reference. Ask for it at your local Kelvinator Distributor's or Zone Office.

Kelvinator

CONDENSING UNITS
REFRIGERATION PARTS AND
SUPPLIES



BUY KELVINATOR FOR ALL YOUR REFRIGERATION REQUIREMENTS

Field Report

One of the News' most popular prewar features, the newly-resumed "Field Report" prepared by the editors and staff correspondents, will continue to report what distributors, dealers, and service contractors are finding out about the market, effective promotion, prices, service charges, etc.

Reprinting Newspaper's Charity Drive Copy with Ad on Back Nets Dealer Sales



it needed \$1,000 to train student-aides.

To keep this from being just another charity drive, the paper planned to launch a subscription campaign and turn over all profits to the home. Bateman heard of the campaign and decided to help. So he put his proposition to Publisher Roy Fowler. "Now look, Roy," Bateman said, "you and I know that your paper

LEFT: full-page advertisement Bateman's used to stimulate store traffic.

doesn't reach every house in the Northeast and so some people who might be glad to dig in and help the kids won't because they don't know about it.

"Here's where I come in. Make a reprint of the three pages. I'll put my advertisement on the back page and we'll send out 10,000 copies to every house and apartment around here. Your carrier boys can do the delivering along with the next issue of the paper."

Bateman stood the cost of the reprint, about \$300 or \$400. In his advertisement, Bateman announced an open house at his store lasting from May 3 through May 29.

To those who visited the store during that time, he offered a chance to obtain a "nationally famous appliance."

The very next day after the circulars were distributed, the people came pouring into his store to look over the appliances. During the period of the open house, Bateman estimated that 500 persons registered for chances on the prizes, usually an electric iron or clock. In addition, several hundred others came to the store to see the appliances but did not register.

WASHINGTON, D. C.—When the neighborhood newspaper for northeast Washington made an appeal to its subscribers for funds to aid the local Children's Country Home for convalescent children, an appliance dealer of that community came forward with an idea that aided both the campaign and himself.

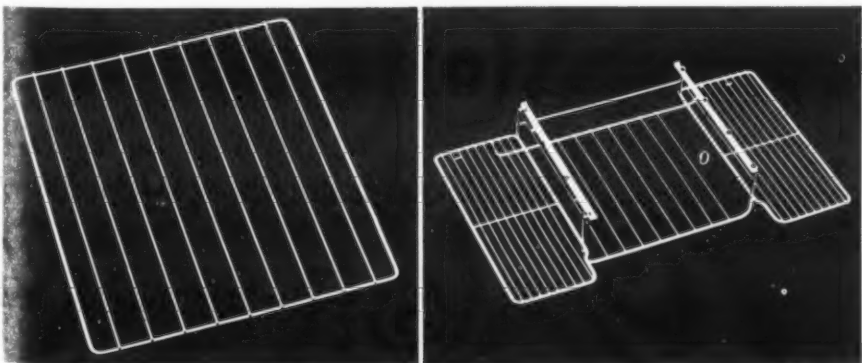
Though he proposed his idea more as a community service than as a business proposition, Joseph L. Bateman, head of the appliance store bearing his name, was pleasantly surprised at the immediate results he received.

The newspaper, *The Guide*, planned to publish a three-page story on the home, complete with pictures, telling the good work it was doing and why

Plain or Fancy Your best source for Refrigerator Shelves is United!

You see below a sample from the hundreds of designs of racks, broilers, grills, shelving, and baskets, now under production for over 60 major appliance manufacturers here at United. No two are alike, each is manufactured to separate specifications.

The transition from drawing board idea to practical production item was accomplished to a large degree by United's own engineering department. This service, rendered without extra cost to manufacturers, has saved them thousands of dollars in production costs. That's why our own customers tell us, that for welded wire or wire and steel, it pays to check with United first!



UNITED STEEL AND WIRE CO.
150 FONDA ST., BATTLE CREEK, MICH.

'They Deserve ... Our Help' ...



First page of the charity drive spread reprints of which were circulated house to house.

Salesmen stood ready to demonstrate any of the appliances for the visitors and made several direct sales on washers, ironers, water heaters, and ranges. Many persons gave their names for later calls at their homes.

All names from the registration were added to Bateman's mailing list for later direct-mail advertising.

"The value of this charity effort," Bateman explained, "is that it helped to localize our promotion target to our own neighborhood clientele, who, after all, provide the bulk of our business."

"The cost was from three to four hundred dollars, but the returns

amply justified this expense. Besides the actual sales it helped us from an intangible standpoint by spreading goodwill all around."

Assisting the many civic and religious organizations in Washington's northeast section is nothing new for Bateman. His showroom is available without charge as an evening meeting place for such organizations. In fact, the Rhode Island Ave. Citizens Association and the East Gate Business Association use it regularly.

Bateman himself is treasurer of the Master Plumbers Association of the District of Columbia and is advertising chairman of the Merchandising Plumbers Association, a group of 19 retailers in the Washington metropolitan area.

The Bateman store has served northeast Washington since 1905. It was started by the present owner's father and has moved only three times—all moves being in the same neighborhood. In addition to appliance sales, the store also handles plumbing and heating equipment, and does contracting and remodeling.

May Range Shipments Dropped Below April

NEW YORK CITY—May shipments of both standard and apartment-type electric ranges by companies reporting to the National Electrical Manufacturers Association fell below April levels, Nema reports.

The companies shipped 87,128 standard-type ranges valued at \$10,944,880 and 13,369 apartment-type units valued at \$932,085 in May. In April, they shipped 92,152 standard types valued at \$11,513,420 and 14,137 apartment types valued at \$985,160.



DISTRIBUTOR WANTED

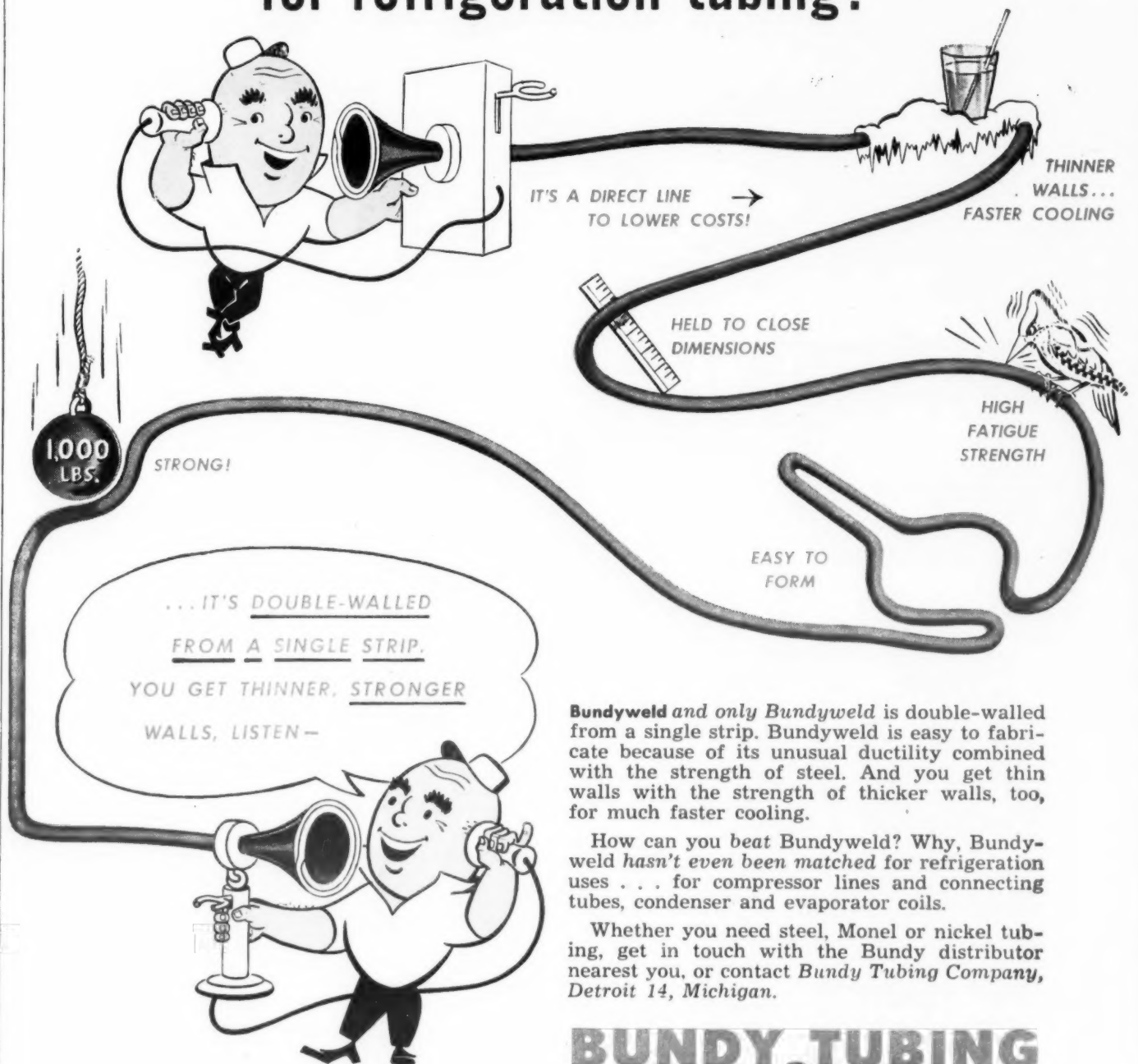
Individual with capital, or established company who will set up separate operation, for distributorship of new line of nationally prominent manufacturer. One franchise issued in each territory. The product is spillage prevention equipment sold direct to food processors, restaurants, butchers, beverage plants, packers, dairies, etc. Investment in merchandise required. Write full details, Box 2864 Air Conditioning & Refrigeration News

WILSON REFRIGERATION, INC.

- FARM AND HOME FREEZERS
- REACH-IN REFRIGERATORS
- WALK-IN REFRIGERATORS
- FARM MILK COOLERS

DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

How can you possibly beat Bundyweld* for refrigeration tubing?



Bundyweld and only Bundyweld is double-walled from a single strip. Bundyweld is easy to fabricate because of its unusual ductility combined with the strength of steel. And you get thin walls with the strength of thicker walls, too, for much faster cooling.

How can you beat Bundyweld? Why, Bundyweld hasn't even been matched for refrigeration uses . . . for compressor lines and connecting tubes, condenser and evaporator coils.

Whether you need steel, Monel or nickel tubing, get in touch with the Bundy distributor nearest you, or contact Bundy Tubing Company, Detroit 14, Michigan.

BUNDY TUBING

ENGINEERED TO YOUR EXPECTATIONS
*REG. U.S. PAT. OFF.

WHY BUNDYWELD IS BETTER TUBING

1 Bundyweld Tubing, made by a patented process, is entirely different from any other tubing. It starts as a single strip of basic metal, coated with a bonding metal.

2 This strip is continuously rolled twice laterally into tubular form. Walls of uniform thickness and concentricity are assured by close-tolerance, cold-rolled strip.

3 Next, a heating process fuses bonding metal to basic metal. Cooled, the double walls have become a strong, ductile tube, free from scale, held to close dimensions.

4 Bundyweld comes in standard sizes, up to 3/4" O.D. in steel (copper or tin coated), Monel or nickel. Special sizes can be furnished to meet your requirements.

Bundy Tubing Distributors and Representatives: Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Binney St. • Chattanooga 2, Tenn.: Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. • Chicago 32, Ill.: Lopham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Philadelphia 3, Penn.: Rutan & Co., 404 Architects Bldg. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 3628 E. Marginal Way • Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 881 Bay St. • Bundyweld nickel and Monel tubing is sold by International Nickel Company distributors in all principal cities.

Profit-pulling HIT of the year!



Kelvinator Electric Water Cooler and REFRIGERATED COMPARTMENT

with 2 full-sized ice-cube trays!

Three answers to thirst in one sleek, streamlined electric water cooler featuring famous Kelvinator refrigeration. Properly cooled drinking water for as many as 12 people, at the touch of a pushbutton faucet. 28 full-sized ice cubes in aluminum trays with handy cube-release levers. Refrigerated storage space—enough for a full case of standard seven-ounce beverage bottles. A triple bid for water cooler profits!

Its fully insulated, Monel metal refrigerated compartment provides uniformly cold storage of 35° to 38°F. The door, too, is heavily insulated, remains condensation-free. Sturdy latch is pushbutton operated and has a theft-proof key-lock for use when desired. Entire unit occupies less than 2 square feet of floor space! No plumbing connections needed; simply plug it in!

Demands are soaring for this new three way answer to thirst. Get in the profit line-up—send for details on Model KB-R Kelvinator-refrigerated Electric Water Cooler! Write!

The EBCO Manufacturing Co.
Town & Lucas Sts., Columbus 8, O.

American Central Ups Sink, Cabinet Prices

CONNERSVILLE, Ind.—A 3.5 to 5% price increase on American Central kitchen sinks and cabinets has been announced by the American Central division, Avco Mfg. Corp. here.

Prices of the firm's food waste disposer and kitchen ventilator were not affected.

Dept. Store Sales Rise 7% For Week Ending July 31

WASHINGTON, D. C.—A 7% rise in department store sales, above those for the corresponding week last year, was reported for the week ended July 31 by the Federal Reserve Board. The Dallas district led the nation with a 16% increase.

GIFT OFFERS

Ham with Range...

BUFFALO—E. W. Edwards & Son boosted the sale of electric ranges in its Appliance Center by offering a 10-pound ham with each range purchase in a one-day promotion. A demonstration of ham roasting in the electric range was held in conjunction with the event.

... Soap with Washer

BUFFALO—Kobler & Miller home furnishing store gave its washer business impetus with a special offer of a year's supply of soap powder with each washer purchase during an August promotion.

Hotpoint, Airline Use Tie-In Exhibit



On display at a Chicago ticket office of Trans World Airlines is this tie-in exhibit of two "sisters under the skin"—the TWA hostess and the Hotpoint "Hostess" range. First shown at the summer Furniture Mart, the exhibit created such interest that officials plan to set it up in other TWA ticket offices.

Quarterly Sales of \$65,956,000 Raise Philco 6-Month Total 16% over Last Year

PHILADELPHIA—With the refrigeration division assuming greater importance than ever before in the company's history, total sales of Philco in the second quarter of 1948 amounted to \$65,956,000, as compared with \$58,661,000 in the first quarter of 1948 and \$57,754,000 in the second quarter last year, reports William Balderston, president.

Sales in the first half of 1948 totaled \$124,617,000 as compared with \$107,941,000 last year, an increase of 16%, Balderston said. Earnings in the second quarter of 1948, after appropriations for an inventory reserve of \$1,000,000 and a research reserve of \$191,000, amounted to \$2,256,000, equivalent after preferred dividends to \$1.44 per share on the 1,502,462 shares of common stock outstanding on June 30.

In the second quarter a year ago, earnings from operations amounted to \$1,627,000.

Earnings of Philco Corp., after appropriations, in the first six months of 1948 amounted to \$4,215,000 and were equivalent after preferred dividends to \$2.68 on 1,502,462 shares of

common stock.

"Philco has just completed the most active six months in its history, and the company expects further gains in all divisions of its business in the last half of the year," Balderston said. "Sales of Philco radio sets in the first half of 1948 were ahead of the same period last year, although total industry sales were down substantially."

"Philco television production already exceeds 4,000 receivers a week which represents a production rate of over 200,000 sets a year. By the fourth quarter, our schedules call for the production of 8,000 television receivers a week, or 400,000 a year. "Even though our production of refrigerators is running well ahead of 1947, we have been unable fully to meet the demand and it will be necessary to continue to allocate the available supply for some time to come."

Operating results for the second quarter of 1948 and comparison with the first quarter of 1948 and second quarter of 1947 follow:

	Second Quarter 1948	First Quarter 1948	Second Quarter 1947
Sales	65,956,000	58,661,000	57,754,000
Earnings before taxes	5,937,000	4,872,000	4,997,000
Taxes	2,490,000	2,128,000	2,275,000
Net Non-Recurring Income, After Taxes			798,000
Earnings for the Period, before Appropriations	3,447,000	2,744,000	3,520,000
Appropriation to Research Reserve	191,000	185,000	376,000
Appropriation to Inventory Reserve	1,000,000	600,000	720,000
Earnings balance after Appropriations	2,256,000	1,959,000	2,425,000
Preferred Dividend Requirements	93,750	93,750	93,750
Earnings Balance per Common Share	1.44	1.24	1.70
Common Shares Outstanding	1,502,462	1,495,343	1,372,143

"Same insulation they use in the best commercial refrigerator cases!"



IT WORKS BOTH WAYS

"Same insulation they use in most home refrigerators today"



...a swell feature to have
...a swell feature to sell



OWENS-CORNING
FIBERGLAS

THERMAL
INSULATION

Fiberglas is the trademark (Reg. U. S. Pat. Off.) for a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation

Multiplex



Stainless Steel
**BAR
DISPENSER**

- ✓ SPEEDS SERVICE
- ✓ INCREASES PROFITS
- ✓ ELIMINATES BOTTLES

Fresh
Carbonated Drinks
COLA, LEMON, GINGER ALE, SELTZER

WRITE FOR ILLUSTRATED BULLETIN AND PRICES

DEALER & DISTRIBUTOR INQUIRIES INVITED

MULTIPLEX FAUCET COMPANY

4325 DUNCAN AVE., DEPT. ARN-14, ST. LOUIS, MO.

MANUFACTURERS OF SOFT DRINK DISPENSERS OVER 43 YEARS

Packaged Conditioner Provides Many Advantages for Sporting Goods Store

OMAHA, Neb. — A \$3,000 air conditioning installation using a Yorkaire "550" packaged unit will pay for itself in three summers, figured on the basis of increased business this June and July, at the Van Avery Sporting Goods Store here, according to Proprietor J. C. Van Avery.

The monetary consideration doesn't take into account the increased efficiency of personnel during hot weather, and the freedom from dust and litter, he added.

It used to be that when a customer came to the store in hot weather, he was in a hurry to get out, Van Avery recounted. The air conditioning system was installed last May, and during June and July sales have mounted to a new high for those months. Patrons stay longer in the store, and per-customer sales have increased as a result.

The store is promoting its new installation successfully by using the line, "Only Completely Air-Conditioned Sporting Goods Store in Omaha," in its newspaper and radio advertising. In addition, a window trim of simulated icicles in cool-blue color draws attention of the passers-by, and a door sign proclaims that "It's Comfortably Cool Inside."

With the store situated on the sunny side of Harney St., this invitation inside to respite from the heat has definitely boosted store traffic.

The Van Avery store has 2,600 sq. ft. of selling space plus a balcony which houses the office. Ceiling is 14 ft. and the refrigeration unit, which also washes and filters the air, maintains the selling floor temperature at a comfortable 75° while operating at only about three-quarter capacity.

BALCONY NOW BEARABLE

The balcony formerly was so hot on many summer days that it was impossible for the clerical help or Van Avery to work there afternoons. The air conditioning system keeps the balcony at 78°. Both the sales personnel and the office help are happier and doing a more efficient job than ever before during the summertime, the proprietor declared.

Still another advantage has been the freedom from dirt that has resulted from air conditioning.

An exhaust fan was mounted in the back wall, and when it failed to do the job, a large airplane type fan also was mounted in the wall. The latter succeeded in stirring up a breeze, but the air was still hot. Dust and litter from the street also was sucked into the store. Air conditioning has changed all that.

The exhaust fans no longer are used, although Van Avery pointed out they might come in handy for ventilation during the colder months of the year. The establishment has steam heat piped it from a central plant which serves several buildings.

Operational cost of the new system is more economical than he had anticipated, Van Avery said. On hot days it is turned on about 9 a.m. and is cut off in mid-afternoon. This procedure keeps the temperature at the desired level right up to 5 o'clock closing time.

Another factor helping to reduce the load is the fact that the floor above the store and the adjoining building on one side both have air conditioning.

INSTALLATION PROBLEMS

The problem of waste-water disposal was bothersome when the installation was first made, according to the sporting goods store proprietor. The basement drain was not large enough to carry off the water.

The difficulty was surmounted by arranging with a merchant, whose establishment adjoins the Van Avery store, to use his basement for water

disposal. Pipes were brought in through the adjoining basement to the air conditioning unit, and a meter installed to measure water usage by the Van Avery unit. More pipes were installed to carry waste water back to the neighboring basement. This arrangement has resulted in a considerable saving over what the cost would have been to enlarge the basement drain outlet from the Van Avery basement to the storm sewer.

The Yorkaire unit has been housed in a basement compartment which eliminates any refrigeration noises so far as the selling floor and office are concerned.

Another feature of the air conditioning unit which the merchant likes is that when outside temperature isn't hot enough to warrant operation of the compressor, he can save money and still circulate fresh, filtered air through the store by turning on the fan alone. Aluminum ducts have been installed from the back wall into the air conditioning unit, and from the unit to the ceiling of the selling floor and along the entire length of the store.

Van Avery now is investigating the possibility of installing a temperature indicator on his store front which will draw attention of passers-by to the prevailing inside temperature. He recalls that in past summers it used to get up to 94° in the store, and he believes the current 19° difference is worthy of dramatization.

Textile Plant Conditioning Issue To Come Up Again

SPARTANBURG, S. C. — One of the most influential members of the Spartanburg County legislative delegation, Matthew Poliakoff, says he will introduce a bill at the 1949 session of the General Assembly requiring all textile plants in this county to install air conditioning equipment. "Many of our textile mills have taken this step, but others have not," Representative Poliakoff declared.

Locker Plant Fee In Los Angeles

LOS ANGELES—Effective Sept. 3, an annual operating license fee of \$24 will be levied against frozen food locker plants in county areas.

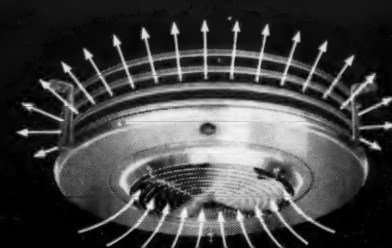
Copeland Announces an Extra Dividend; '48 Payments Up over '47

SIDNEY, Ohio—Directors of Copeland Refrigeration Corp. on Aug. 11 declared an extra dividend of 10 cents a share on the common stock in addition to the regular quarterly payment of 10 cents a share, both payable on Sept. 10 to stockholders of record on Aug. 21.

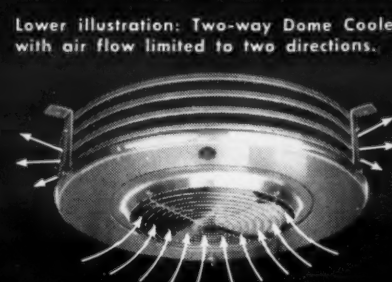
Extras of 5 cents were disbursed in each of the three preceding quarters. Dividend payments for the fiscal year to end on Sept. 30, accordingly, will total 65 cents a share, against 25 cents a share disbursed in the preceding fiscal year.

Copeland recently reported sales and profit gains for nine months.

Choice of the Field!



Upper illustration: Standard Dome Cooler with air emitting in all directions.



Lower illustration: Two-way Dome Cooler with air flow limited to two directions.

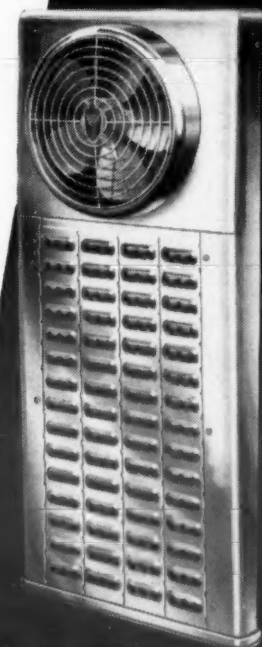
PEERLESS DOME COOLER

● For top performance in reach-in and walk-in coolers, install the PEERLESS DOME COOLER, the motor-driven cooling coil with a long history of satisfactory service. In the new, improved 1948 model you have the finest performance yet in this type of cooling coil. It's easily installed and occupies minimum space. The handsome spun aluminum casing holds precision-engineered parts which insure dependable, trouble-free operation. Air is drawn up in the center of the unit, cooled, and discharged horizontally along the fixture ceiling to drop down the side walls. This efficient, constant cooling cycle maintains high humidity, keeping stored products at the peak of their quality. Use PEERLESS motor-driven cooling coils. You'll find that today's outstanding cooling coils are PEERLESS-MADE!

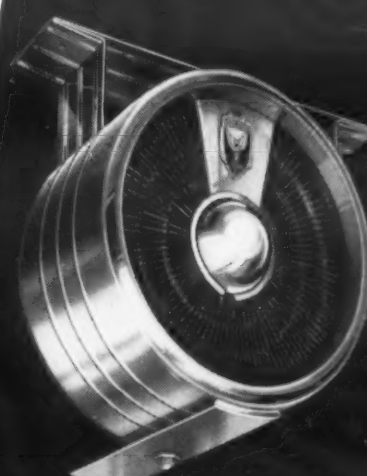
CASCADE COOLER This motor-driven coil combines radiant and convection cooling. Even the ornamental casing is a cooling surface! Cold air cascades downwardly from the face of the unit, which hugs the wall, saving storage space.

UNIT COOLER This is the new PEERLESS "PIE PLATE" with all primary and secondary surfaces IN THE AIR STREAM. There is no waste surface in this condensed package of refrigeration power.

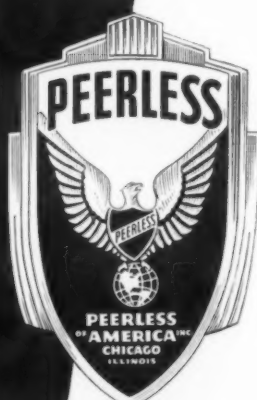
FOR BOX TEMPERATURES ABOVE 32°
FOR USE WITH FREON, METHYL CHLORIDE AND SULPHUR AS REFRIGERANT
SEND FOR ENGINEERING DATA AND PRICE LISTS



CASCADE COOLER



UNIT COOLER



PEERLESS of AMERICA, Inc.

2901 LAWRENCE AVE.

CHICAGO 25, ILLINOIS, U. S. A.

MARSH
Pressure Gauges
Dial Thermometers
★The gauge with the
Recalibrator
Ask for this New
Refrigeration Booklet
JAS. P. MARSH CORP.
Dept. O, Skokie, Ill.



ENGINEERED
REFRIGERANT
CONTROLS

ALCO VALVE CO.
ST. LOUIS

FOR TROUBLE-FREE PERFORMANCE



on your next job choose a

MILLS

a condensing unit for
every installation

Mills Industries, Incorporated • 4100 Fullerton Avenue • Chicago 39, Illinois

New Forum, Inc. Drive-In Restaurant In Kansas City Installs Air Conditioning In Both Kitchen, 70-Guest Dining Room

KANSAS CITY, Mo.—When the Forum, Inc., nationally-known chain of popular priced cafeterias operating in half a dozen cities elected to test application of drive-in methods to cafeteria production with a handsome drive-in restaurant here, one of the primary specifications was that both dining room and kitchen be air conditioned.

The new Forum Drive-In Restaurant is located on Kansas City's Country Club Plaza where heaviest traffic in the city passes and is arranged to serve approximately 70 persons in a large dining room, 250 in the privacy of their automobiles.

BUILDING IS OCTAGONAL

The building is octagonal in shape, with plate glass windows all around through which most of its operations can be viewed, and has a high illuminated tower similar to an aircraft beacon which indicates the restaurant's position for miles either way.

The semi-circular kitchen extends around the rear and is slightly larger than the dining room; which is to be used by families or customers who prefer dining at a table to the trays carried out on the parking lot to automobiles.

The main kitchen food station is so situated that orders can be handed out at one side to car-hop parking lot service girls, or through a small window into the dining room with equal ease.

Air conditioning specified was un-

usual for several reasons. First, the air conditioned kitchen is believed to be the only such in a commercial restaurant anywhere in the country, and was installed for the dual purpose of production efficiency and making the working lives of employees more pleasant at a time when kitchen personnel is scarce.

JOB REQUIRED INGENUITY

In Kansas City's often 100°-or-higher summer temperatures, it was felt that keeping the kitchen to the comfortable temperature of 80° would keep all employees content with their jobs.

Second, because of the small size of the building, the air conditioning equipment had to be installed in an absolute minimum amount of space, requiring considerable ingenuity on the part of Temperature Engineering Co., Carrier dealer in Kansas City who designed and installed the twin systems.

Cooling the kitchen is a 20-ton system carefully overpowered to compensate for the heavy heat load arising from steam tables, bain maries, gas ranges, steam kettles and hot plates used. The preparation section of the kitchen is in a circular basement, where enough space was left to install the 20-ton compressor and an evaporative condenser cooled by city water circulated through the basement.

The refrigeration equipment is located directly beneath the plenum chamber containing the direct expansion coils and blower, and a fresh air intake opens from the basement window directly into the chamber—requiring altogether only about 6 x 6 ft. of space for all equipment.

This system, thermostatically controlled from a point in the center ceiling, delivers 15,000 c.f.m. of air cooled to 75° and keeps the kitchen at an even 80° despite the heavy load.

Air is distributed by means of Venturi-K'lo diffusers in the ceiling, located directly over the major heat producing zones, which "mushroom" cooled air over the room. Part of the heat load is compensated for by a 6,000 c.f.m. exhaust fan in the ceiling air space.

The kitchen system is also notable for the fact that it circulates 100% fresh air, brought in from the basement window intake, and exhausted immediately after passing once through the room.

The system cooling the dining room is a 15-ton Weathermaker installation, with all equipment located in the tower attic. Here a 15-hp. compressor and a small evaporative condenser projecting at the rear of the tower are housed vertically above the plenum chamber, which contains a 10,000 c.f.m. blower, although only 8,000 c.f.m. are normally required to cool the room to 80°. The attic fan here exhausts heated air as well.

Cooled air is delivered into the large dining room by three large simple grilles spaced along the upper walls, sufficient to cool the smaller, less-active and heated area represented. Thermostat here is located in the return duct, and about 80% of the air is recirculated in the dining room.

USE VESTIBULE-TYPE DOORS

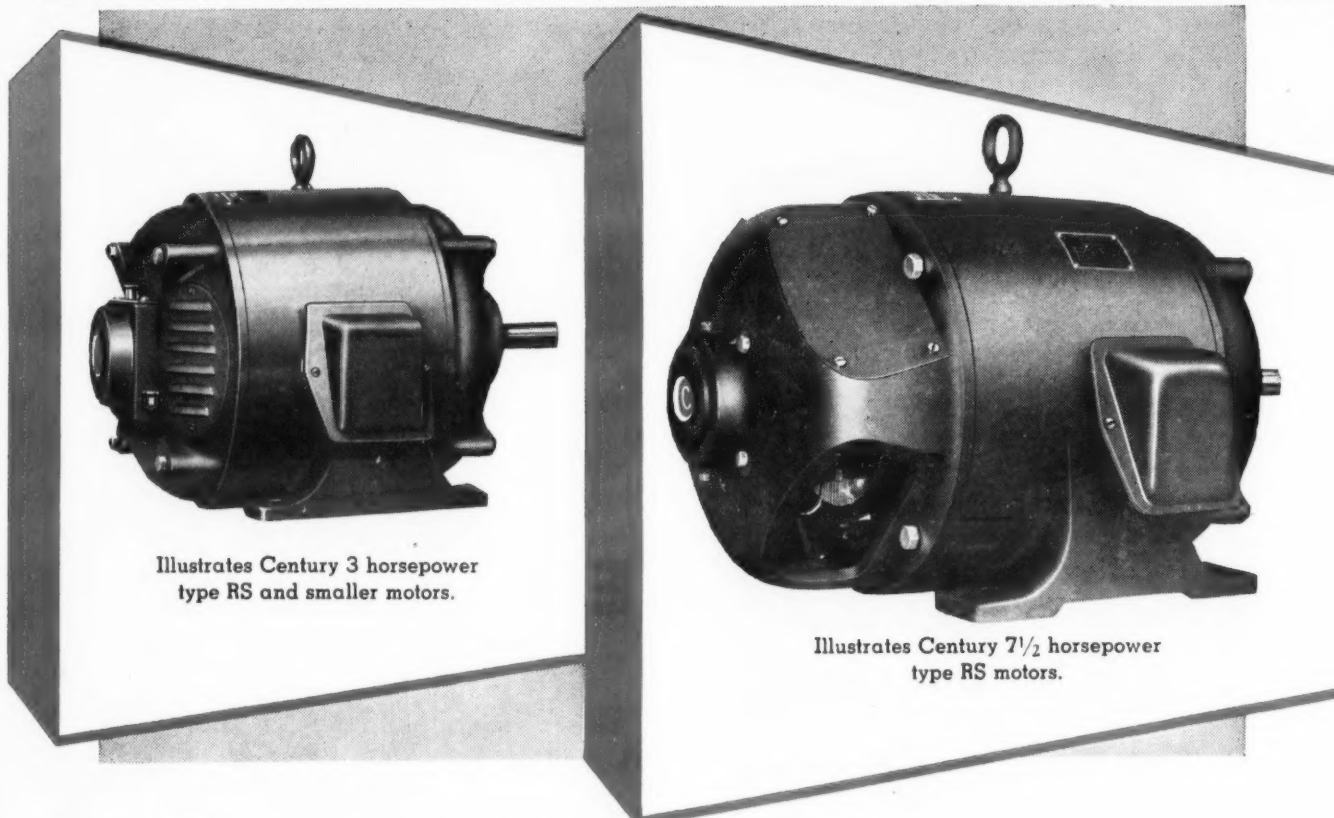
Vestibule-type doors into both the kitchen and dining room aid in maintaining temperature at low expense, although the kitchen cooling system operates almost continuously.

Carrier refrigeration was used throughout in the Forum Drive-In. Included are a 2-hp. condensing unit refrigerator for seafoods and perishable foods, 1-hp. drinking-water cooler, a 3/4-hp. root beer tap system, and an 8-hole ice cream cabinet powered by a 1/2-hp. Carrier compressor.

In the basement are three large walk-in refrigerators connected to a 2-hp. Carrier unit. A smaller Carrier box is used for chilling salads and desserts next to the steam table.

An outstanding feature of the installation is that all controls for conditioning and refrigeration are grouped on a single panel board in the kitchen, which has complete hand valves for each unit for shutting down independently where necessary.

The refrigerating compressors were installed to save space in banks of two in the basement, directly over each other in a ladder-like arrangement.



Century Repulsion Start Induction Brush Lifting Single Phase Motors START HEAVY LOADS

Century Type RS motors are widely used to drive all kinds of motorized equipment wherever single phase power is distributed, particularly in suburban or farm districts. They have been satisfying owners for more than 43 years.

Because repulsion start motors have the highest starting torque per ampere of any single phase motor, they are ideal for equipment that must start under full load.

Century single phase motors are built in sizes up to 20 horsepower and other types in a wide range from 1/6 to 400 horsepower to provide top performance to meet every electric power application.

Specify Century for all your electric power requirements.



CENTURY ELECTRIC COMPANY • 1806 Pine Street • St. Louis 3, Missouri

Offices and Stock Points in Principal Cities

564



THE Ideal
UNIT FOR
MEAT AND
FLOWER
STORAGE



In thousands of installations from Coast to Coast, "Record" Supreme coils are being used for Storage of meats, flowers, delicatessen products and vegetables. This ceiling type coil provides a complete circulation of air in a minimum space. A recent new development permits installation at the end of walk-in coolers with equally efficient results. This is just one of a complete line of "Record" products, designed to meet every refrigeration need. Mail the coupon now for further information.



REFRIGERATION
ENGINEERING, INC.
7250 East Slauson Ave.
Los Angeles 22, Calif.

"RECORD"
7250 E. Slauson Avenue.
Los Angeles 22, Calif.

Please furnish us with complete information on "Record" equipment

Name _____

Address _____

City _____ Zone _____ State _____

Westinghouse Plant at Springfield To Have Dick as Works Manager

EAST SPRINGFIELD, Mass.—Appointment of C. B. Dick as works manager of the East Springfield Appliance Division plant of the Westinghouse Electric Corp. has been announced by J. H. Ashbaugh, vice president.

Dick succeeds James R. Weaver who has accepted a position with the Baldwin Locomotive Works, Philadelphia, under Marvin W. Smith, a former Westinghouse executive, who is now executive vice president of Baldwin.

Joining Westinghouse in 1918 as an inspector, Dick was graduated from the Westinghouse Technical High School. In the factory he has served in many different capacities, ranging from foreman in 1923 to manager of manufacturing in 1943. He has been manager of the feeder division since 1945. As head of the feeder division, Dick directed the activities of approximately 4,000 persons and was responsible for supplying materials and parts to other divisions of Westinghouse.

Dick has served as president of the Westinghouse Veterans Employee Association, Foreman's Association, Clerks Association, and is a member of the Wilkesburg, Pa. school board and board of recreation. He is president of the Pittsburgh Foundryman's Association and is a member of the board of the Westinghouse Educational Center, an educational and recreational organization.

EEL Booklet Designed To Help Executives Select Men as Sales Supervisors

NEW YORK CITY—A manual entitled "Guide for the Selection of Sales Supervisors," which outlines suggested procedures for the assistance of executives charged with the responsibility of choosing salesmen for promotion, has been prepared by the Sales Personnel and Training Committee of the Edison Electric Institute, and published by EEL.

These suggestions, the manual states, will "reduce the margin of error in selection of supervisors that is created by such factors as confusion in qualifications sought in supervisors; dissimilarity of work between rank-and-file jobs and supervisory positions, and among supervisory positions; unpredictability of employee reaction to new supervisory responsibilities, and lack of familiarity with facts on the part of the selectors."

Detailed descriptions and specifications for each supervisory position should be prepared, the manual declares, and should list all duties and responsibilities involved.

"Man specifications," which show the qualities and traits essential for successful performance in each post, are also suggested. If the executive then has adequate information on candidates for each post, the task of selection becomes one of weighing individual qualifications against the requirements of the position.

Typical position descriptions, man specifications, and employee progress report forms, as developed by representative electric utility companies, are shown in the manual, with suggestions for their most effective use.

"Guide for the Selection of Sales Supervisors" is available at Edison Electric Institute, 420 Lexington Ave., New York City, at 75 cents per copy.

Remington Net Profit Shows Big Increase over Last Year

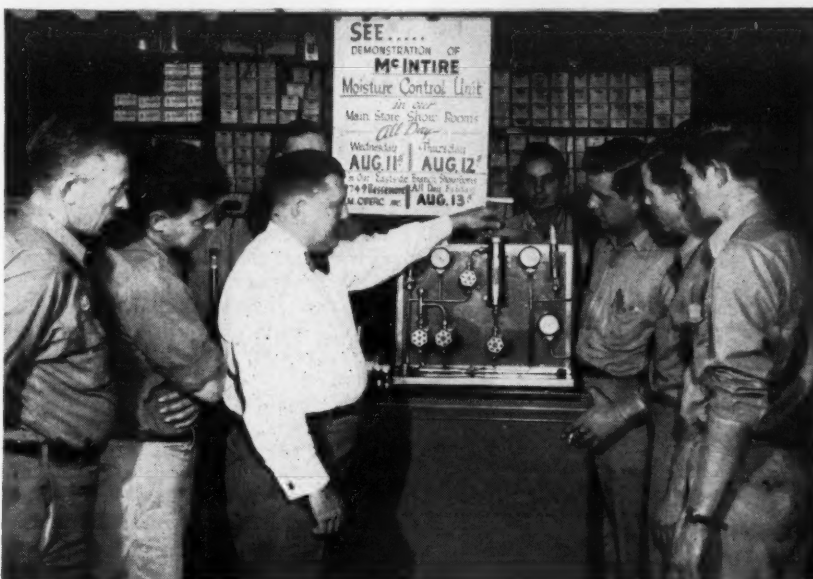
CORTLAND, N. Y.—Remington Corp., manufacturer of room air conditioner here, has reported a net profit of \$42,223.44, equal to \$1.43 per share for the six months ended June 31.

This compares with a net profit of \$424.12 for the entire year of 1947, according to the report to stockholders.

An initial dividend of 10 cents per common share was voted at the July meeting of the board of directors.

Commercial Dealer Continues Business Despite \$30,000 Fire

ROCHESTER, N. Y.—Cable-Wiedemer, Inc., 138 State St., dealer in refrigeration equipment, store fixtures, and hotel-restaurant supplies, was swept by fire recently which caused \$30,000 damage to the building occupied by the firm. However, the firm continues open for business as usual.



Visual demonstrations of refrigeration equipment and accessories always attract the interest and attention of servicemen, as evidenced by this demonstration of McIntire Connector Co.'s new "moisture control unit" staged at J. M. Oberc, Inc., Detroit parts wholesaler. (The unit was described in detail in the July 5 NEWS.) Left to right are W. C. Harlin of Exello Refrigeration, John Boros of Boros Refrigeration, M. J. Meiklejohn of McIntire, Leonard Gienke, Oberc counter salesman; Charles Rencsak of AAA Refrigeration, J. V. Bloomster of New Center Refrigeration, and James R. Goode, Jr., also of AAA.

Tips on Choosing Proper Solder Issued by Divco

CHICAGO—Points to consider in determining solder grade and size for a given job, melting points and feet per pound of various sizes and grades, together with other information of value to solder users are described in a new solder bulletin, just issued by Division Lead Co., 836 W. Kinzie St., Chicago.

Also included are four-color illustrations of the new solder saver "Snap-On" metal covers, used on Divco one pound solder spools.

Bilt-Rite Co. Named To Handle Loudon, Federal In Houston

HOUSTON, Tex.—Roy Loudon, president, Loudon Sales, Inc., announces the appointment of Bilt-Rite Refrigerator Co. of Houston, Tex., as distributor for Loudon and Federal lines of refrigeration in the Houston area.

In charge of sales for Bilt-Rite is C. W. Bushey.

A New Koch Display Case with Endless Appeal



VERSATILE
for **DAIRY PRODUCTS**
PRODUCE
PACKAGED MEATS

HEIGHT: 56-in. overall.

LENGTH: Nominal 10-ft. In multiple line-ups, each section occupies 118 3/4 in.

FINISH: Porcelain enamel applied to genuine enameling iron, combined with polished stainless steel and high-baked Dulux. Mirror has copper backing.

REFRIGERATION: Designed for remote operation. A 3/4-H.P. unit is normally required.

GLAZING: Genuine Thermopane panels, made up of two panes of polished 1/4-in. thick plate glass.

LIGHTING: Full length fluorescent tubing.

A 3-purpose fixture simplifies dealer inventory problems. It satisfies the requirements of three different customers.

ADJUSTABLE TEMPERATURE: Case is heavily coiled so that temperatures as low as 37 degrees are easily available. For produce and dairy products, where such cold conditions are not necessary, the proper temperature can be reached by simple adjustment of the control.

ADJUSTABLE DISPLAY SHELF: Slope of shelf is easily varied, from level required for dairy products, to the best slant for packaged fresh meats or produce. Easily installed produce dividers make the display attractive and convenient.

ENDLESS FEATURE: Any number of these cases can be set end to end. The display becomes continuous simply by removing the end Thermopane glass panels and installing a narrow shelf section between the adjacent cases.

Here is a case that is selling in impressive quantities to markets, produce stores, dairy stores, and other outlets. It provides dependable self-service refrigerated display. Take advantage of the clamor for self-service fixtures.

KOCH Refrigerators

North Kansas City 16, Mo.

SINCE 1883

Write today for details and open territories.

KOCH FOR QUALITY!

for draft and bottle
beverage coolers...

IDEAL
Speed-Freeze
PRODUCTS

IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 8, MO.



Sanitary Quickfree

TRIZONE

For Every Food Keeping Need

4.5 cu.ft. of normal refrigerator operating at 40° Ave. with 6.25 cu.ft. of zero frozen storage for 250-300 lbs. of meat. 48 1/2" W x 28" D x 40 3/4" H. No. C-1148

\$399.50

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN

Manufacturers of Quality Refrigerators for Over 40 Years
QUICFREEZ Farm Locker Plants Since 1939

Dealers To Be Reimbursed For Range Advertising In Philadelphia Drive

PHILADELPHIA—A three-month electric range campaign involving newspaper promotion and demonstrations in dealers' stores will be opened by the Electrical Association of Philadelphia (EAP) on Sept. 13, John A. Morrison, managing director, announced.

The association will conduct demonstrations for five dealers of each of the 14 range distributors scheduled to participate in the campaign. A demonstration team will include a senior home economist, an assistant home economist, a lecturer from the distributor, and an EAP representative.

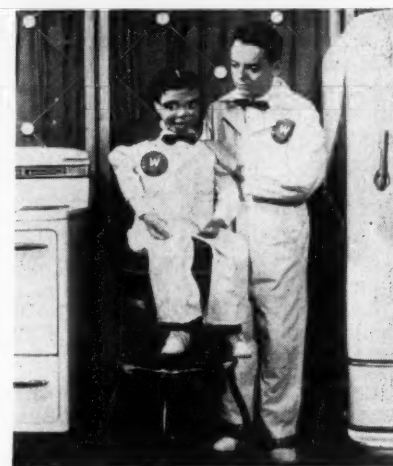
EAP will pay for a 14-in. advertisement run in any neighborhood newspaper of the dealer's choice prior to a demonstration. In addition, it will furnish without charge printed invitations to be mailed by the dealer. EAP will also provide food and other material used in demonstrations.

Each demonstration will cost the association \$47. Participating dealers are to contribute \$25 toward this total.

Any dealer who installs an electric range in his showroom during the promotion will be reimbursed by the association. It will pay up to \$50 of the cost on the basis of \$10 for each range sold within three months after installation.

A similar campaign conducted last spring resulted in the sale of 1,500 ranges, according to Morrison.

'On Stage' for Westinghouse



Ventriloquist, Dummy Perform at Namm's; Business Goes Up 50%

MANSFIELD, Ohio—The Westinghouse Appliance Division has added a singing ventriloquist to its sales promotion staff.

Roy Douglas, who is nationally known for his ability to sing a duet with his dummy, is being featured throughout the country in sales meetings and promotions sponsored by the company.

According to J. G. Baird, sales promotion manager for the division, the use of a ventriloquist in electrical appliance merchandising is a new approach to such promotions "not only as a traffic builder, but as a real sales maker."

Douglas with his dummy, "Eddie Westin," recently made his first one-week stand for Westinghouse at Namm's department store, Brooklyn, which promptly realized a 50% gain in business, store officials state.

Dressed as Westinghouse servicemen in coveralls, Douglas and Eddie follow a commercial comedy script which explains the highlights and features of the Westinghouse refrigerator, automatic washer, radio-phonograph, and other products which share the platform with the team. Considerable ad-libbing, especially with the youngsters in the audience, gives the show an additional spontaneity.

Present plans call for 30 weeks of appearances on a three-a-day basis by Douglas and Eddie at the country's leading department stores.

Los Angeles Homes Offered With 6 Major Appliances All Ready for Operation

LOS ANGELES—Modern homes complete with all the electrical kitchen and laundry appliances may be purchased today without costing much more than the average unequipped new structure.

Cletus H. J. Jollie, well-known Los Angeles builder is presently proving this point in his Loyola Village subdivision where 76 new General Electric equipped homes, priced complete for \$12,500 to \$16,500 are nearing completion.

These modern two-bedroom homes feature a planned, operating General Electric kitchen and laundry. The appliances included in the Jollie bungalows can be paid for as part of the regular realty mortgage.

Installed and ready for use upon occupancy of the home are the following appliances: electric refrigerator, electric sink with disposal unit, "speed cooking" range, a home freezer, and a washing machine.

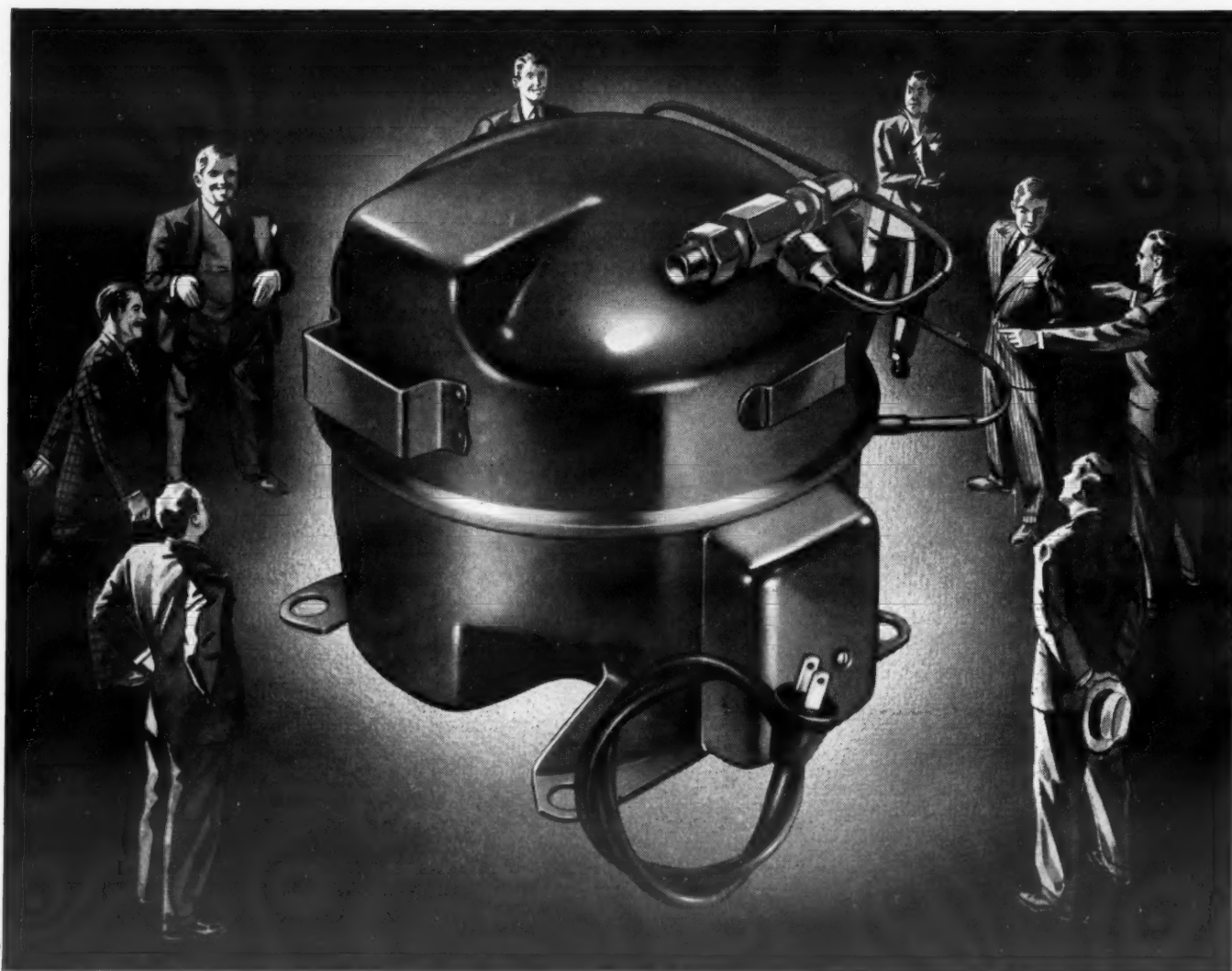
In addition, General Electric all-steel cabinets are included to provide ample storage space and work surfaces for the interested housewife.

S. B. Maher, manager of the Los Angeles branch of General Electric Appliances, Inc., points out that these modern six-room bungalows offer the ex-G.I. as well as the non-veteran the finest in electrical living.

"The added conveniences of a complete G-E kitchen and laundry are the necessities which make the house a home," Maher stated. "Further these appliances not only make the home more livable now, but make it more salable years from now. They are investment protectors."

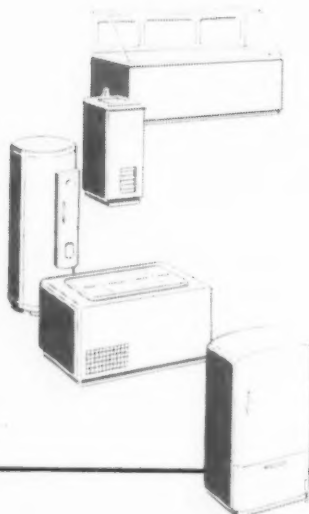
Ready for occupancy about Sept. 1, these homes, built exclusively on corner and large choice lots, are the last to be completed in the Loyola Village tract, which consists of 500 homes in all. The tract adjoins Loyola university. Commitments for 20 of these homes have already been made.

Following the completion of the Loyola tract, Jollie and associates will start their Tree Lane Project in the Santa Anita woods consisting of 80 Jollie built, General Electric equipped homes. Plans are also being made for a similar project in the Orange Groves of Covina.



Looks good from all angles!

No matter how you look at Tecumseh Hermetic Compressors . . . whether with an eye for design, engineering, construction, or high operating efficiency . . . you'll find them clear-cut leaders on all counts for any application within their range. They're smooth, quiet, dependable in operation . . . precision built throughout to assure long-life, trouble-free performance. And important, too, from a cost point of view, they're available to manufacturers of complete products, or they can be supplied on high-sides or incorporated in completely sealed systems. So get the facts . . . all the facts on Tecumseh Hermetic Compressors. Single and twin cylinder models . . . 1/8 to 1/2 horsepower . . . Freon 12 or Freon 22 . . . for a wide range of domestic and commercial applications. Write today for complete information.



TECUMSEH PRODUCTS COMPANY
Tecumseh, Michigan
EXPORT DEPARTMENT • 2111 Woodward Avenue • Detroit 1, Michigan

THE WORLD'S LARGEST INDEPENDENT PRODUCER OF COMPRESSORS AND CONDENSING UNITS FOR THE REFRIGERATION INDUSTRY

Refrigerator Sales Up 115% In Knoxville Area In June

KNOXVILLE, Tenn.—An impressive 115% gain in refrigerator sales and a 51% gain in ironer sales were the only major appliance sales increases scored during June by local dealers, according to a report issued by the Knoxville Utilities Board.

The sale of 734 refrigerators during June, though way above May, was still short of the 798 moved in April.

All other major appliances showed sales declines in June. Electric ranges were down 11%, washing machines 22%, home freezers 23%, water heaters 30%, dishwashers 50%, and waste disposal units 60%.

The utility's June report, compiled from 35 dealers, is as follows:

Appliance	Units	Value
Home Freezers	37	\$ 10,890
Refrigerators	734	189,219
Ranges	351	84,810
Water Heaters	119	14,314
Dishwashers	3	830
Waste Disposal Units	2	250
Washing Machines	404	64,341
Ironers	47	7,632

'Laundry Wizards' Spur Bendix Sales

SOUTH BEND, Ind.—A team of "Laundry Wizards" is having singular success in spurring sales of Bendix washers, dryers, and ironers in midwest department stores, says Parker H. Erickson, director of sales for Bendix Home Appliances, Inc.

Moving into a store after an audience has been secured through newspaper advertising, mailed invitations, spot radio announcements, and window displays, Miss Mary Ellen DeWine and Robert B. Moore, special sales representatives, present streamlined presentations, concluded within an hour. Alternating with Miss DeWine is Miss Mary Price, a factory ironer instructor.

Depending on their interests, women in the audience are classified when they specify what souvenir they wish—a package of soap for the washer, a terry face cloth for the dryer, and a tea towel for the ironer. Then the retail salesmen move in for follow-up. Erickson said the promotions are "netting many direct sales and excellent prospects."

Wall WIRE PRODUCTS COMPANY

PLYMOUTH • MICHIGAN

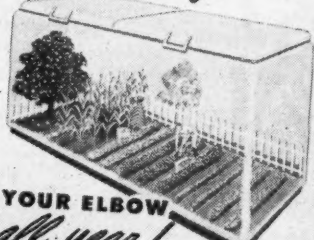
Makers of

REFRIGERATOR SHELVES • STAMPINGS FORMED AND WELDED PRODUCTS

An effective low-cost Refrigerator Shelf is our Basic Wire Shelf with Pro-Seal finish.

Freezer Ads Show Varied Approach

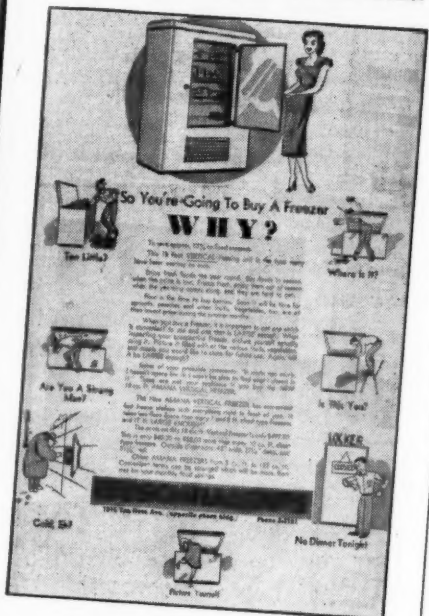
Like a summer garden



AT YOUR ELBOW
...all year!



OUT-OF-SEASON EATING
A utility ran this one in Ohio papers stressing year-round foods.



MEAL-PLANNING
A dealer ran this one in California papers stressing "surprise" menus.



CAPACITY
A dealer ran this one in west coast papers stressing need for sufficient storage.



EASY SHOPPING
A utility ran this one in Washington, D. C. papers stressing increased leisure.

Quicker Warehousing

Small-Lot Wholesale Orders of Frozen Foods To Be Handled with Large-Size Food-O-Mat

NEW YORK CITY—Lansing P. Shield, inventor of the new Food-O-Mat, has disclosed that a larger version of the retail vending fixture is now being developed for use in wholesale warehouses handling orders of less than case lots.

He said the wholesale fixture will operate on the same gravity-feed principle as the retail unit and will be particularly suitable for frozen foods and drugs.

Shield also revealed that new retail fixtures are now being designed or nearing production and testing. They include units for delicatessen items, baby foods, candy, paint, hardware and variety store notions and novelties, and a Drug-O-Mat.

The Food-O-Mat, designed to help supermarkets become general self-service shopping centers, replaces open shelves. It contains tiers of inclined ramps divided into sectional

tracks according to size of the products handled. It is loaded and replenished from the rear.

Some of the advantages claimed for the fixtures are:

1. They provide adequate display while using less space, thus permitting wider aisles and more departments.

2. They eliminate the factor of irritation in clerk-shopper contacts because the clerks, working behind the fixtures as feeders, are kept out of store traffic.

3. They eliminate overtime for after-hours restocking of supply shelves.

4. They simplify inventory taking because stock room personnel quickly acquire skill in determining the contents of each fixture by the number of empty spaces on each sectional track.

Shield predicted that stores gen-

erally will become more and more mechanized.

"The movement now is to get the consumer used to doing most of her shopping under one roof," he said. "This will lead to the creation of self-service shopping centers."

Although the Food-O-Mat company is a wholly-owned subsidiary of Grand Union Stores, of which Shield is president, its products are available to other users.

Gov't Buyers Meet Oct. 18-20

WASHINGTON, D. C.—The Third Annual Conference and Exhibit of the National Institute of Governmental Purchasing, Inc. is scheduled for Philadelphia Oct. 18-20, according to W. Z. Betts, president. Site of the meeting will be the Hotel Bellevue-Stratford.

Air Cooled Shoe Store Opens

ERIE, Pa.—The new A. S. Beck shoe store, opened here Aug. 20, will be completely air conditioned. Melvin Morris was the architect, Lloyd Construction Co., general contractor.

7 Wyoming Locker Plants Raise Processing Prices

CHEYENNE, Wyo.—Seven refrigerated locker storage plants in Cheyenne and trade area have adjusted processing prices on meats and wild game upwards 10 to 25% because of increased cost of materials and labor.

Effective immediately, processing charges on beef, pork, and lamb are four cents per pound; rendering two cents, with 70% of lard to the customer; antelope, \$4; deer, \$4 plus four cents a pound over 100 pounds dressed weight; elk and moose, four cents a pound; elk and moose skinning, 50 cents per quarter; antelope and deer skinning, \$1; and one cent per pound extra for wrapping in foil.

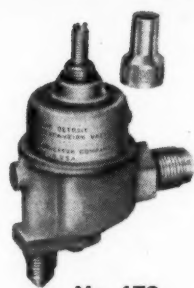
Omaha U. Offers Conditioning

OMAHA, Neb.—A job training course in air conditioning will be available at the University of Omaha this fall. Instructors will be from local business and industrial firms.

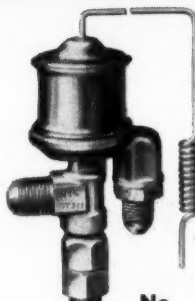
"DETROIT" REFRIGERATION ACCESSORIES

Assure Complete Satisfaction

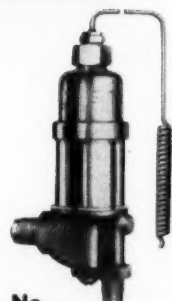
EXPANSION VALVES—DISTRIBUTORS



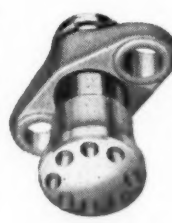
No. 672
"Detroit" Automatic Expansion Valve



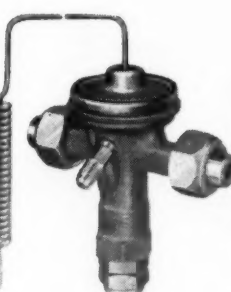
No. 573
"Detroit" Thermostatic Expansion Valves



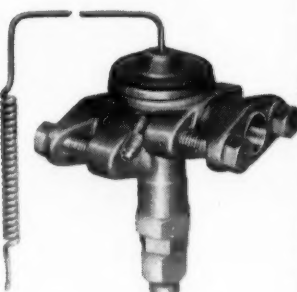
No. 673



No. 790
"Detroit" Distributors



No. 899
"Detroit" Thermostatic Expansion Valves



No. 786-787-788

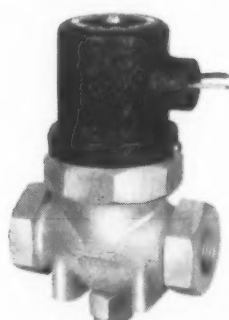
SOLENOID VALVES



No. 683-3



No. 681



No. 686

"Detroit" Solenoid Valves

Check THESE IMPORTANT FEATURES

EXPANSION VALVES—DISTRIBUTORS

Complete range of capacities up to 20 tons Freon-12. Gas-charged power elements—quick response—prevent motor overload. Diaphragm and bellows types. Operating characteristics for all applications.

CAPACITIES—Freon 12

No. 672.....	.35 to 3.6 tons
No. 573.....	.5 tons
No. 673.....	1.2 to 3.6 tons
No. 899.....	1.6 to 6.0 tons
No. 786.....	3 to 6 tons
No. 787.....	6 to 11 tons
No. 788.....	12 to 20 tons

(No. 899, 786, 787, and 788 have external equalizer connection.)

These are representative of the large number of valves in the "Detroit" line. Distributors are used with large valves to serve multiple refrigerant lines. No. 790 is available with flange or union connection, with from 2 to 18 passes.

SOLENOID VALVES

Wide range of sizes for liquid line, suction line and water service. "Detroit" Solenoid Valves are quiet, compact and powerful. They may be used with any liquid that will not attack brass.

CAPACITIES—Freon-12 (2 lb. pressure drop)

No. 683-3, orifice 1/8".....	1 1/4 tons
No. 683-3, orifice 3/16".....	3 tons
No. 683-3, orifice 1/4".....	3 3/4 tons
No. 681, orifice 3/8".....	7 1/2 tons
No. 686, orifice 1/2".....	11 tons
No. 686, orifice 3/4".....	17 tons

All capacities are for liquid line.

No. 681 is pilot operated requiring a minimum pressure drop of only one psi on refrigerant to operate the piston. No. 686 is a heavy duty, large capacity pilot operated valve which requires a pressure drop of only 1 3/4 psi on refrigerant, 5 psi on water to operate the piston.

DETROIT LUBRICATOR COMPANY

DIVISION OF AMERICAN RADIATOR & Standard Sanitary CORPORATION

GENERAL OFFICES:
5900 TRUMBULL AVENUE • DETROIT 8, MICHIGAN

Canadian Representatives—Railway and Engineering Specialists Limited, Montreal, Toronto, Winnipeg



"DETROIT"

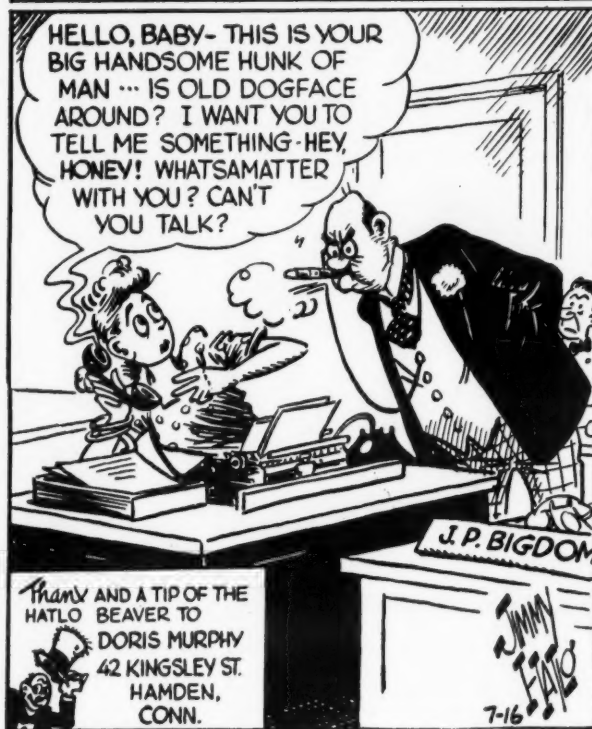
"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories
Stationary and Locomotive Lubricators

They'll Do It Every Time By Jimmy Hatlo

SEEMS LIKE WHENEVER THERE'S A PHONE CALL FOR THE BIG CHEESE HE'S THE ORIGINAL VANISHING AMERICAN

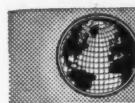


BUT COMES IT AN INTIMATE CALL FOR HIS STENO. HE STICKS CLOSER THAN THE VARNISH ON HER DESK —



AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark
registered
U. S. Patent
Office;
Est. 1926



Copyright
1948,
Business News
Publishing Co.

F. M. COCKRELL, Founder

Published Every Monday by BUSINESS NEWS PUBLISHING CO.
450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924.

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: \$5.00 per year; 2 years \$8.00. All other foreign countries: \$7.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Please send remittance with order.

GEORGE F. TAUBENECK
Editor and Publisher

PHIL B. REDEKER, Editorial Director
C. DALE MERICLE, Associate Editor

JOHN SWEET, Assistant Editor
HUGH MAHAR, Assistant Editor
GEORGE HANNING, Assistant Editor
ROY DENIAL, Assistant Editor
Editorial Assistants: MARGARET DEAN,
MARCELLA JOHNSON, MARGARET
POMMERENING, LORRAINE MAJOR,
AND MARKESE ROSE.

E. L. HENDERSON, Business Manager
ROBERT M. PRICE, Adv. Representative
ALLEN SCHILDHAMMER, Adv. Rep.
ALLEN S. RUSSELL, Adv. Rep.
BETTY JANE KING, Adv. Secy.
YVAUGHN CHRYSLER, Subscription Mgr.
WALTER J. SCHULER, Production Mgr.

Member, Audit Bureau of Circulations. Member, Associated Business Papers.

VOLUME 54, No. 17, SERIAL No. 1,014, AUGUST 23, 1948

Steel Price Trends

IT would be easy to go off the deep end about the costs of steel. Because most mills have discarded the basing point system, steel prices, recently raised, soon may even go higher. The question is: How high, and for how long? An answer to that one is important to those who schedule industrial production.

Certainly the 11% higher price level for most steel products, figured as it is on increased costs of labor and materials, shows every indication of permanency. But not so with the new policy of pricing steel f.o.b. mill. Here the circumstances are considerably different and would bear the careful scrutiny of all management men who buy and use steel. For costs have now reached the level where many users of steel may feel compelled to move their factories nearer to the mills.

Steel consumers who follow that tack assume the abandonment of the basing point system to be irrevocable. Their major problem then becomes: How to get along under the new method? If all steel mills quote one f.o.b. price the course for these do-it-right-away manufacturers will be somewhat simplified. For they would then only have to redraw their steel supply maps geographically, dropping suppliers a long distance away in favor of those nearer point-of-use. All scheduling would be conditioned by the amount of freight charges involved. Perhaps the elimination of "phantom" freight charges would mean a substantial saving to some users with plants next door to steel mills. But others would still be forced to obtain special steels from far-away markets at higher net cost.

As a deterrent to hasty action, consider the possibility that the new level of steel prices will not be uniform throughout the industry, because (1) Large users have generally been able to force price concessions from mills, (2) Large steel producing centers normally cannot consume all the steel they produce. It's entirely possible that mills in such areas would have to offer a lower f.o.b. price to attract purchasers from distant factories and keep production above the break-even point. The present heavy demand for steel unfortunately tends to becloud many of the difficulties that would arise were f.o.b. mill prices uniform.

The important thing to remember is that once the abandonment of the basing-point system becomes permanent, each manufacturer will have to reappraise his competitive position. That may mean relocation of plants, changes in the material content of products, and various other corner-cutting measures. Such major decisions should not be made in a hurry merely to seek temporary advantage. For they involve drastic schedule changes and long-range costs that will be haunting manufacturers long after the present economic flurries are history.

Even snap-decision executives must admit that the end of basing-point pricing might not be as final as it looks. After all, as a problem, f.o.b. pricing is a premature baby. It was scarcely more than a year ago that the Federal Trade Commission issued a complaint against the steel industry. A good part of that time hearings have been conducted before the Commission. They're far from over, even now. Chances are that when all testimony has been heard, the FTC will issue a cease-and-desist order. But even that decision would be subject to a test in the Federal courts. How long all the legal wrangling will take is anybody's guess. Probably the Supreme Court won't get around to ruling on the end of the basing-point system until 1951.

Matters might very easily have waited until then, but the steel companies decided to force a different kind of test. Anticipating that the Supreme Court will decide in favor of f.o.b. pricing, steel men have apparently initiated the unpopular f.o.b. mill pricing in order to exert indirect pressure on Congress to legalize the basing-point method. Should the present system make steel users angry enough, their concerted drive on Congress might result in a law forbidding f.o.b. pricing. In effect, they would accomplish for the steel industry what it might have great difficulty achieving for itself.

Do You Have 'One Foot In the Door'?



SUMMER
and
SPRING

WINTER
and
FALL

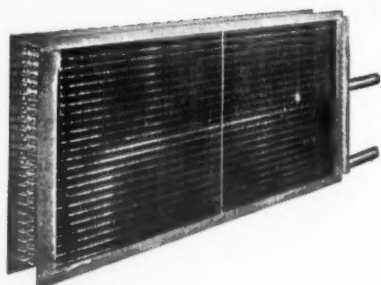
Sell

GOVERNNAIR
ALL YEAR 'ROUND

Your sales don't have to "drop off" at the end of every summer season. Sell Governair All year 'round and keep that sales curve "up" during slack periods.

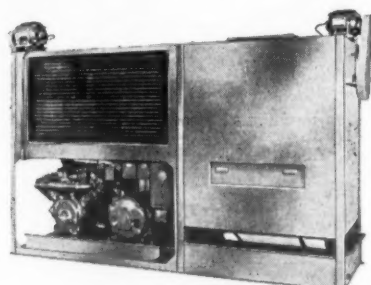
Sell blast coils for converting our packaged unit to year 'round air conditioning. Sell completely packaged air conditioners to those who didn't order early enough this season. Sell unit coolers for efficient refrigeration.

Yes, keep your sales average HIGH — sell Governair All year 'round. Clip out coupon below and mail today.



**BLAST COILS FOR YEAR
'ROUND HEATING & COOLING**

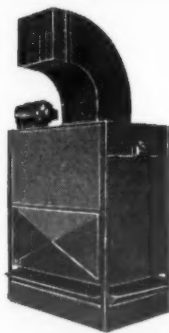
Governair blast coils for efficient heating or cooling take the lead for year 'round business! Smart operators are selling these to convert our completely packaged air conditioners for year 'round comfort. Others use them for cooling or heating in numerous other ways. Made of copper tubing and copper fins spaced according to temperatures involved. All joints are securely welded and a thorough pressure test is made before each unit's delivery. Check into your potential sales of these versatile coils right away! Sell Governair all year 'round.



**COMPLETELY
PACKAGED AIR CONDITIONERS
FOR YEAR 'ROUND COMFORT**

This is the famous Governair completely packaged air conditioner which has made air conditioning history! Expertly designed for efficient operation, easy installation and high quality performance this air conditioning unit is known as the greatest VALUE IN THE FIELD!

It can be quickly utilized for year-round air conditioning to provide clean, warm air by connecting a Governair heating coil to the system. Owners of the unit are your immediate prospects for fall and winter business. Sell them also to those "hot" prospects who didn't order early enough this year. Sell Governair all year 'round!



**UNIT COOLERS FOR
YEAR 'ROUND REFRIGERATION**

The Governair floor type unit cooler needs no introduction! It is compactly designed for operation in cold storage rooms to produce temperatures below or above 33 degrees. The units may be furnished with either vertical or horizontal air delivery as required. Available in a wide range of sizes to provide air delivery from 1,600 to 20,000 CFM.

Particularly desirable for its efficiency and mobility, this unit was highly praised and its performance was proven in world-wide use by the Army and Navy during the war. It always does a capable year-round refrigeration job, so it's a "natural" sales builder for year-round business. Sell Governair all year 'round!

CLIP THIS COUPON AND MAIL TODAY

Dept. H
GOVERNNAIR CORPORATION
513 N. Blackwelder, Oklahoma City, Okla.

We want to keep sales high during slack periods. Without obligation, please send free literature as checked so that we may sell Governair all year-round!
☐ Governair Blast Coils ☐ Governair Completely Packaged Air Conditioners
☐ Governair Unit Coolers

NAME _____ TITLE _____
COMPANY NAME _____
STREET ADDRESS _____
CITY AND STATE _____

GOVERNNAIR

GOVERNNAIR CORPORATION

513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

House Sets Hearings For Small Business On Unfair Practices

WASHINGTON, D. C.—The House of Representatives committee investigating monopoly and unfair trade practices will give small business firms a chance to air their grievances against their bigger competitors.

Present plans call for a series of hearings to be held in 12 cities throughout the nation this fall. Dealers and other operators of small business will be invited to detail their complaints at these meetings.

Tentative schedule for the hearings and the cities in which they are to be held follows:

Month	Day	City
September	3	Butte, Mont.
"	8	Casper, Wyo.
"	11	Salt Lake City
"	15	Kansas City, Mo.
"	17	Omaha, Neb.
"	20 & 21	Minneapolis
"	23	Madison, Wis.
"	27	South Bend, Ind.
October	1 & 2	Detroit
"	5	Louisville, Ky.
"	8	Oklahoma City
"	12	Houston, Tex.

Additional hearings in Chicago, Philadelphia, New York City, and Washington, D. C. may be held after the November election, according to the report.

Cox Now at Chicago Frigidaire Branch

CHICAGO—Appointment of B. H. Cox, former sales promotion manager of Frigidaire's St. Louis branch, to advertising and sales promotion manager of the Chicago branch of the Frigidaire Sales Corp., has been announced by H. J. Walker, Jr., Chicago branch manager.



Cox is a veteran with nearly 20 years experience in the appliance sales field. He became associated with Frigidaire in 1946 when he was appointed sales promotion manager of the St. Louis branch.

Prior to that time, he spent 17 years with the Union Electric Co. of St. Louis, serving as branch manager, assistant merchandising manager, as well as merchandising manager.

for
SULFUR DIOXIDE
and
METHYL CHLORIDE

See Your
ANSUL WHOLESALER



These Ansul Refrigerants have a long record for DRYNESS, PURITY and DEPENDABILITY. You will like Ansul's friendly service.

ANSUL CHEMICAL COMPANY
REFRIGERATION DIVISION
MARINETTE, WISCONSIN
DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22," "FREON-113" AND "FREON-114"

CURTIS REFRIGERATION
AIR CONDITIONING
COMMERCIAL
For All Your
Refrigeration and
Air Conditioning
Requirements
Curtis Refrigerating Machine Division
of Curtis Manufacturing Company R-528
1912 Kienlen Ave. St. Louis 20, Mo.
Established 1854

New Hotel Has 45 Refrigerated Spaces for Foods and Beverages

Temperatures Vary To Suit Items Stored

CINCINNATI — A total of 45 different refrigerated spaces, each automatically controlled to assure retention of top quality at ideal temperature and humidity levels, feature the modern facilities of the new Terrace Plaza hotel located in this city.

Installed by the Cincinnati Air Conditioning Co., distributor for Carrier Corp., the refrigeration systems are comprised of Carrier reciprocating compressors ranging from 1/4 to 10 tons capacity, in combination with fan and blower type cold diffusers and direct expansion coils.

The systems cover a wide range of temperatures, with a low of 0° F. for frozen foods to 55° F. for the chilling of wines for patrons of the Gourmet Restaurant in the penthouse on the roof.

Storage facilities range from a 3-cu. ft. reach-in box to the wine

room which has an area of 910 cu. ft. Each space is cooled to the ideal temperature for the foods in that storage area.

In the bulk storage rooms in the sub-basement and basement, dairy products are stored at 40°, fruits and vegetables at 42°; cheese, 45°; meats, 36°; ice, 34°; and frozen foods are held at 0°.

Eight floor kitchens have storage and dispensing facilities for meats, fish, oysters, and poultry at 36° F.; salads, 42°; vegetables and fruits, 42°; service and cocktail bar accessories 40°.

For French cuisine in the Gourmet Restaurant kitchen in the penthouse, storage temperatures range from 36° to 40° F., with the wine room temperature at 55°.

Drinking water for the entire building is chilled to 50° F. and kept constant at that temperature.

'Package' Gasoline Driven Refrigeration Unit Handles Either Transport or Stationary Jobs

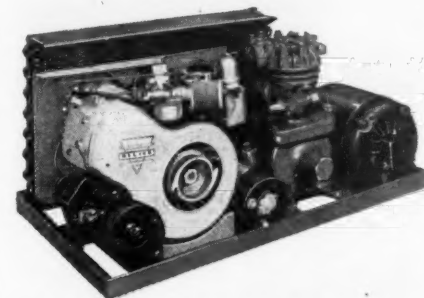
PHILADELPHIA — An automatic gasoline driven "package" refrigeration unit for transport or stationary applications has been developed by the Allied Air Conditioning & Refrigeration Engineering Co. and is being marketed under the trade name "Transitemp."

Designed for the addition of auxiliary electric motor drive, the Transitemp unit fits into a space measuring 26 in. long, 17 1/2 in. high by 22 1/4 in. wide.

The unit is available in a broad range of capacities. According to the manufacturer, unit capacities at 0° F. range from 6,600 to 15,000 B.t.u. per hour; at 20° from 8,000 to 17,000 B.t.u. per hour; at 40° from 9,000 to 19,000 B.t.u. per hour.

Auxiliary electric motor drive, if required, will be supplied in 1/4, 1, 1 1/2, and 2 hp. sizes, according to capacity requirements of the units.

Among the features claimed for the design are an automatic clutch,



Condensing unit and the gasoline engine which drives it are mounted on a single frame in the "Transitemp" unit.

automatic choke, and thermostatic positive starting mechanism. Condenser is air cooled, but water-cooled condensers are available for unit.

Besides applications in trucks, the unit is adapted for railroad cars, small pleasure and commercial boats, and stationary applications on farms, it is claimed.

BETTER FOR MEAT.....

BETTER FOR BUSINESS..

Hardy Meat Packing Co.
selects Ferro-Therm
for new
40' x 60' x 17' cooler



Ferro-Therm insulated cooler under construction at the Hardy Meat Packing Co., Saticoy, Cal.

THE Hardy Meat Packing Co. of Saticoy, Cal., is now building a new cooler—the largest of its type on the Pacific Coast—which will expand its business to include processing, breaking small cuts for restaurants, a complete sausage room and kitchen, smoking facilities, and a sharp freezer for conditioning meat.

To make this new cooler, Hardy is building a room measuring 40' x 60' x 17', with a capacity of 60 tons of dressed beef. And to ensure maximum refrigerating efficiency in every phase of its operations, Hardy is insulating the room throughout with Ferro-Therm Steel Insulation. An example of the efficiency achieved is the loading

dock, which can be held at a temperature so low that it will be completely free from flies and other insects—thus eliminating fans, sprays, etc.

Company after company—leaders in every field—are selecting Ferro-Therm Steel Insulation for fruit storage, food processing, breweries, meat packing, chemical storage, portable units, wineries and test chambers. Let Ferro-Therm give your structure the durability of steel... lower heat storage capacity... a positive vapor barrier... and the many other advantages that only reflective steel insulation can provide. Mail the coupon now for complete information.

Ferro-Therm

Reg. U.S. Pat. Off.

STEEL INSULATION

Fully Protected by U.S. and Foreign Patents Issued and Pending



Page 3 D-1 and 3 D-2 Engineering File

AMERICAN FLANGE & MANUFACTURING CO. INC.
Ferro-Therm Division, Dept. AC-8, 30 Rockefeller Plaza,
New York 20, N. Y.

Please send me without obligation, complete information on

☐ Ferro-Therm Steel Insulation

I am an ☐ engineer; ☐ architect; ☐ contractor; ☐ user

Name

Firm

Street

City State

Superior Names Overend Water Heater Market Book Factory Representative Prepared by Hotpoint, Inc.

PITTSBURGH—John W. Overend has been appointed factory sales representative of Superior Valve & Fittings Co., and will represent the company in the states of Ohio, West Virginia, eastern Kentucky, eastern Michigan, western Pennsylvania, western New York, and the Province of Ontario, Canada.

Overend is a graduate of Carnegie Institute of Technology. Prior to joining the Superior organization as sales representative in the Philadelphia area he was field engineer for the A. M. Byers Co. During World War II he served as a lieutenant U.S.N.R.

Joseph F. Bourn Represents S-W Heating Div. In Southwest

INDIANAPOLIS—Joseph F. Bourn, architectural engineer of Dallas, Tex., has been appointed Southwestern sales representative for the home heating equipment division of Stewart-Warner Corp. here, it is announced by Key Ryan, in charge of "South Wind" home heater sales.

From his Dallas headquarters Bourn will be responsible for distributor contacts in Texas, Oklahoma, Arkansas, Louisiana, and New Mexico, Ryan said.

CHICAGO—A new Hotpoint "plan book and market supplement," analyzing four major markets for electric water heaters, is available for dealers as part of a follow-up campaign on this appliance launched earlier this year, states Hollis C. Doss, sales planning manager.

Doss said that dealers now have a great opportunity to boost the water heater sales curve this fall because:

1. Electric water heaters have enjoyed a sharp increase in popularity.
2. The "Magic Circle" theme, based on the pressurized Calrod method of heating, has wide acceptance.

3. The plan book and market supplement present proven, practical plans for stimulating sales.

According to Hotpoint there are four major markets for electric water heaters: Of 33 million homes having electric service, only 10 million have adequate automatic water heating facilities. More than one million new homes will be completed in 1948—all of them prospects for automatic electric hot water service. Over two million outmoded water heating units will need replacing in 1948, and many homes will be remodeled. The majority of rural prospects now have automatic electric water pumping systems, but in many rural areas the cost of gas exceeds electric service, or gas service is not available.

In urging dealers to tie-in with Hotpoint national advertising, the plan book cautions them to train salesmen only with suitable training aids, and analyze both market and prospects.

Servicemen Get Simplified Version of Complicated Subject



Above is a panoramic view of the educational meeting held by Penn Electric Switch Co. in Roger Young Auditorium, Los Angeles, Calif. This was one of 18 meetings in which the subject of automatic controls was dramatically presented to service engineers.

OHI Folder Explains Favorable Oil Outlook

NEW YORK CITY—In support of their belief that the true picture of the present favorable fuel oil situation can only be brought to the American homeowner by an actual house-to-house, person-to-person effort by the entire oil heating industry from manufacturers to salesmen, the Oil-Heat Institute of America has prepared a folder, entitled—"Oil For America," for oil burner salesmen.

The new 10 x 14-in. green and black OHI folder will contain six reprints of recent oil industry advertisements as appearing in national magazines under sponsorship of the Oil Industry Information Committee.

"In contrast with earlier discouraging statements and advertisements by the industry, the new set reflects positive, constructive thinking that will go far in allaying public fear of oil shortages," says the OHI.

The reason for using oil producers' statements rather than those of the Oil-Heat Institute itself was explained by L. A. Casler, president of Casler, Hempstead & Hanford, Inc., public relations counsel for the Oil-Heat Institute.

"Since the real authority on oil supply resides with the oil refiners and not with ourselves, we felt that the actual advertisements now being run by the oil people would far more effectively serve the cause of reassuring homeowners than would any statements, however factual, turned out by the oil heat industry whom homeowners might feel had an 'ax to grind.'"

The reprints and folders are available to dealers and their salesmen through their oil heat equipment manufacturers or directly from the Oil-Heat Institute, 6 East 39th St., New York City. Price is 25 cents per folder plus postage and packing.

Penn Meetings Feature Info on Automatic Controls And 'Live' Demonstration

GOSHEN, Ind.—A series of 18 educational meetings on automatic controls with refrigeration and heating service engineers was recently completed by R. H. Luscombe, general sales manager, of Penn Electric Switch Co. Meetings were devoted to practical information on the use, construction, selection, installation, and servicing of automatic controls.

Use of giant cutaway models with moving parts, colored slides, and a "live" demonstration board illustrating the functioning of a complete refrigeration system enlivened the interesting presentation and simplified what is generally conceded to be a complicated subject.

The "live" refrigeration board climaxed the meeting by visually illustrating the function and operation of each part of the refrigeration system. Diagrammed on a large board, the system incorporated different colored lights to show the action of its function.

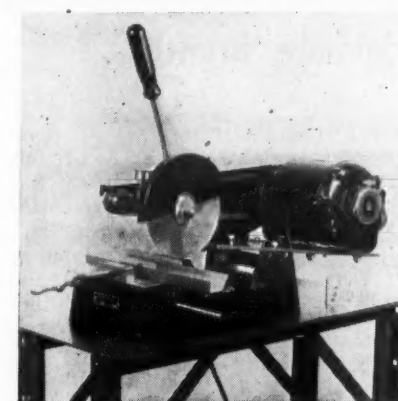
At the close of each meeting, a question and answer session was held for the benefit of the audience to answer their individual questions on application problems. Meetings in each city were sponsored by local wholesalers of Penn Electric controls.

The west coast meetings were held in Spokane, Seattle, Portland, Sacramento, San Francisco, Fresno, Los Angeles, San Diego, Salt Lake City, and Denver. This series of meetings proved so popular, says Penn Electric officials, that the company is now planning to schedule similar meetings in other sections of the country. These meetings will be announced as soon as arrangements have been made.

Cut-Off Machine Cuts Operating Time 85%

DETROIT—Approved Devices Co., 525 Woodward Ave. here has announced a new portable light-duty cut-off machine, said to save 85% on the time required using the power saw method.

Suitable for pipes, tubing, brick, rods, plastics, tool steel, tile, etc., the unit can be fitted with an attach-



ment to cut at any angle. It is equipped with a 1/2-hp. motor, which operates on 110 volts, 60 cycles.

Over-all dimensions of the tool are given as 10 in. wide by 24 in. long by 11 in. high. It weighs 53 lbs. with the motor. Price with motor, cord, and switch is given as \$69.75, without motor, cord, and switch it sells for \$49.50. A 30-in. high machine steel stand is available for \$15.00.

Coker Bros. Moves To Larger Quarters

ASHEVILLE, N. C.—Coker Bros., air conditioning and heating equipment contractor here, has moved to new and larger quarters at 111 Broadway. The firm is owned and operated by W. P. and R. L. Coker.

The CRYSTAL-FLO "LB" Carbonator Assures Highest Quality Soda at Lowest Cost

Small in size, highly efficient, low in price, the Crystal-Flo Model "LB" Carbonator offers all users one of the greatest values in the carbonator field.



It Provides:

Top Quality Soda — Finer Carbonation

Water is pumped into a stainless steel carbonating tank (no lining to need replacement) containing CO₂ gas. Here the water is separated into a fine mist that immediately absorbs gas and gives high carbonation at once.

Exceptionally Convenient

No belts, pulleys, gears or lubrication necessary. Normal maintenance includes only cleaning of check valve and strainer.

Low in Cost

Water pump runs only when soda water is being drawn. Gas is practically the only operating cost.

Capacity and Size

Capacity 20 to 25 gallons per hour. Occupies space only 16" x 20" x 12". Filter optional. There are other Crystal-Flo carbonators in larger capacities for all uses.

CRYSTAL-FLO

the original UNDER-BAR DISPENSER

Now new and improved, the Crystal-Flo Dispenser eliminates cost, trouble and space needed to handle full or empty bottles for soft drinks. Saves top counter or bar space, too. Mixes better drinks in continuous flow. For all soft drinks and mixed beverages.

DISTRIBUTORS

Here's your opportunity to increase your sales and profits with a line of the finest precision built and engineered units on the market. The Crystal-Flo System is ideal for the rich fountain and tavern market. Write for information.

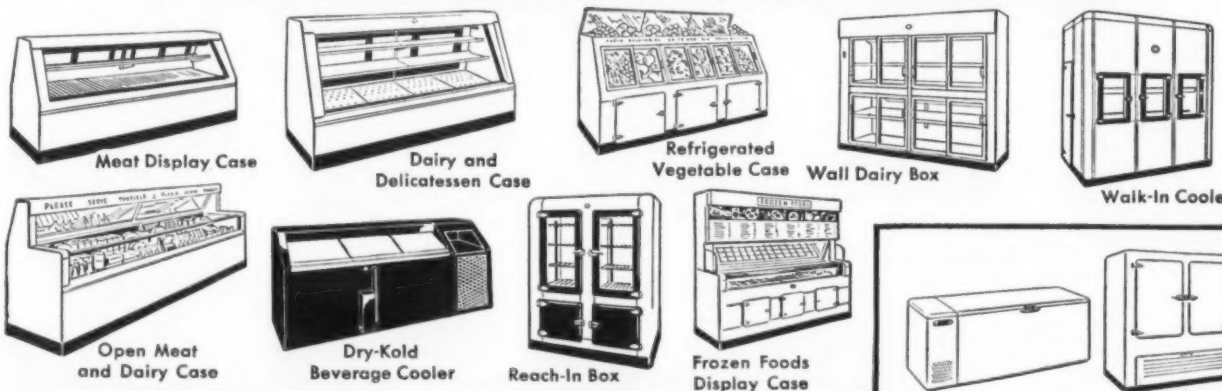
AMP CORPORATION

2915 Locust Street

St. Louis 3, Missouri

AC-43

IT'S TYLER FOR FOOD REFRIGERATION



HARDER-Freezer Home Freezer, 12, 18 and 24 cu. ft. Chest Models—9 and 18 cu. ft. Uprights.

TYLER FIXTURE CORP. NILES, MICHIGAN

What's New

Enterprise Co. Makes Small Buzzer Alarm for Freezers

FREERPORT, Ill.—For applications where the freezer is located close to living quarters, Enterprise Products Co. has turned out a small, buzzer-signal version of its low-temperature alarm.



Identified as Model FA-300, the Enterprise freezer alarm is priced at \$13.50 plus battery cost, f.o.b. Freeport.

The unit has an aluminum housing (3 in. x 3 in. x 6 in.) with a test button on one side and a line switch on the other. From the bottom of this wall-mounted freezer alarm a 6-ft. coil of capillary tubing protrudes. Thermostat may be set for a temperature of either 15° F. or 25° F.

To install the Enterprise alarm one can nail or screw the box to the wall near the freezer and pass at least 15 in. of capillary tubing into the freezer. Best point of entry, the company explains, is next to the lid hinge where opening and closing of the freezer will not interfere with the normal functioning of the signal system.

A battery capable of long continuous operation powers the buzzer and assures a warning even in the event of power failure. Enterprise adds that the signal is given in ample time for the refrigeration unit to be serviced before spoilage occurs, or for food to be transferred to other storage facilities.

A new battery will sound the alarm only for a 24-hour period, so users are cautioned to personally check any unit that has been left unattended for a longer time. Otherwise the buzzer may have kicked on during the user's absence and run the battery down considerably.

In order to check up on the status of the alarm, all that is necessary is to press the test button. If no signal results, battery has run down, freezer temperature may be high, and immediate servicing required. Operating efficiency of the unit may also be

tested by grasping the thermostat in the hand and holding it for a short time.

The strength of the battery should be checked at least every six months, the company advises. Maximum life of the battery, however, is only one year.



Device Quiets Radio When Telephone Handset Lifts

MILWAUKEE — A device that automatically silences the radio when the telephone receiver is lifted to begin a conversation and automatically turns the radio on again when the receiver is replaced has been introduced by the Kenworth Mfg. Co. here.

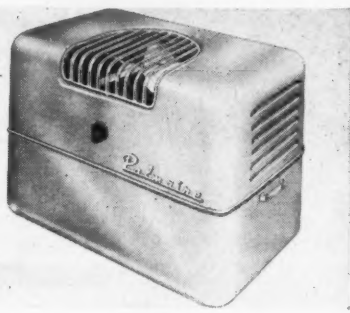
Called the "Radi-Off" the device is to be merchandised through appliance, specialty, and department stores, according to the manufacturer.

Radi-Off is a shallow base platform upon which the telephone rests. An electrical cord from the Radi-Off is merely plugged into the same outlet as the one the radio uses for its own operation.

The manufacturer claims that the device will work just as well to silence vacuum cleaners or electric mixers, and to shut off electric irons while the housewife is talking on the telephone.

Homes, offices, and commercial establishments are seen as logical prospects for Radi-Off.

Kenworth Mfg. Co., is located at 3461 N. Holton St.



Palmaire Unit Humidifies By 'Rain-Drop' System

PHOENIX, Ariz. — A "rain-drop" system that washes, filters, and moisturizes air is incorporated in the new Palmaire portable automatic humidifier, a product of the Palmer Mfg. Co.

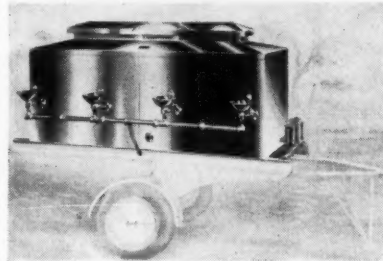
Emphasized by the company is the humidifier's role in promoting better health and comfort through the removal of dust, pollen, and other impurities from air in the office or home. By raising the moisture content of air, the Palmaire humidifier likewise is able to protect furnishings and interior construction against the ravages of a parched atmosphere.

Suction caused by an interior fan draws air in by side louvers and thence through dampened filters where moisture is picked up and foreign matter dropped out. After that the air is expelled through a chromium grille at the top of the humidifier.

Filters are kept damp by a recirculating water system powered by a small centrifugal direct-driven pump

and connected to a three-gallon reservoir. It may be connected for automatic water refilling.

The Palmaire unit has a height of 11 in., depth of 9½ in., and a length of 16 in. Weight, packed for shipment, is 20 lbs.



Water Cooler Designed for Mobile Industrial Crews

BROOKLYN — Providing proper drinking water for large, floating industrial crews operating here and abroad is the function of a new, mobile water cooler now being offered by Filtrine Mfg. Co.

The cooler consists of a heavy-duty, automatic refrigerating machine and a 25-gal. chilled water reservoir housed in a stainless steel cabinet. The cabinet measures approximately 60 in. by 30 in. by 24 in. high.

Up to eight "sanitary-type," stainless steel bubblers, divided in predetermined ratio, provide for segregated drinking at either side of the cooler. Incorporated in the unit are self-contained filter-dechlorinators.

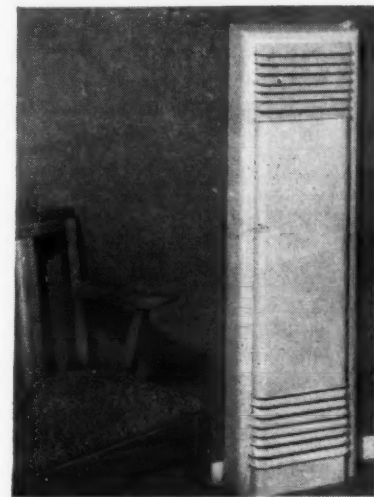
The entire unit is anchored on 4-in. I-beams for truck transportation or for permanent mounting on its own

mobile carrier. At job locations, the cooler is coupled to the water source and operated by electrical or gas-engine power.

Stressing that construction is rugged throughout, Filtrine described the cooler as built to withstand conditions and climate encountered in domestic and foreign field service. Exterior and interior fittings are said to be unaffected by extreme temperatures or excessive humidity.

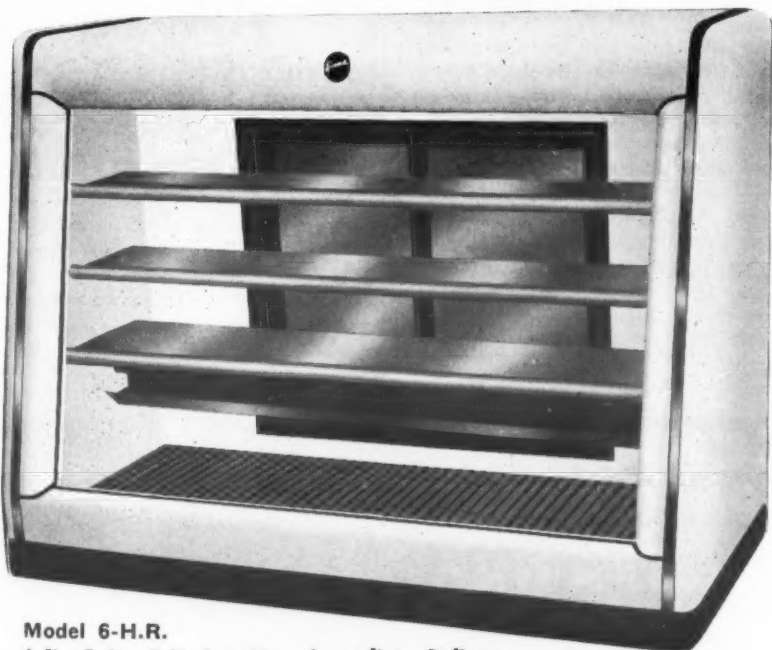
The cooler was developed in cooperation with a major oil company to serve 300-man floating crews employed in oil refineries. Models now being produced are for use in shipyards, mines, mills, plantations, and construction projects.

Uses 3 Types of Power



The Williams Radiator Co. Model 20 warm air circulator which operates on natural, manufactured, or L.P. gas.

TOPS WITH DEALERS FOR SALES AND PROFITS!



Model 6-H.R.

4-ft., 5-ft., 6-ft. lengths—Immediate Delivery

THE SENSATIONAL EVANS FULL VISION SHOW CASE

Evans Full Vision Cases fill the needs of Bakeries, Grocers, Delicatessens, Dairies, Restaurants—fully displaying merchandise and keeping it "Cold until it's Sold."

COMPARE THESE FEATURES:

- TRIPLE glass thermopane fronts guaranteed not to sweat or fog for five years.
- AUTOMATIC DRAINING SYSTEM for a clean case.
- WARP-PROOF HARD RUBBER sliding doors and jams in rear of case to save space (available with solid swinging doors on 4-ft. case).
- MODERN DESIGN. Utility adds to appearance. Plus many other features.

Write for Full Information today!

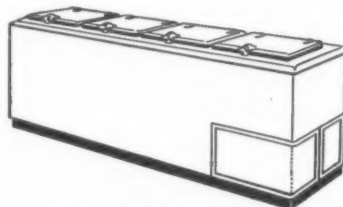


EVANS' MANUFACTURING CORP.
460 SOUTH 10TH AVE., MT. VERNON, N. Y.

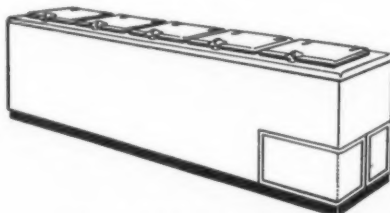
Sell Food BTC Freezer and You Sell QUICK Freezing



Model FC-12-1
12½ Cubic Feet



Model FC-18-1
18 Cubic Feet



Model FC-23-1
23 Cubic Feet

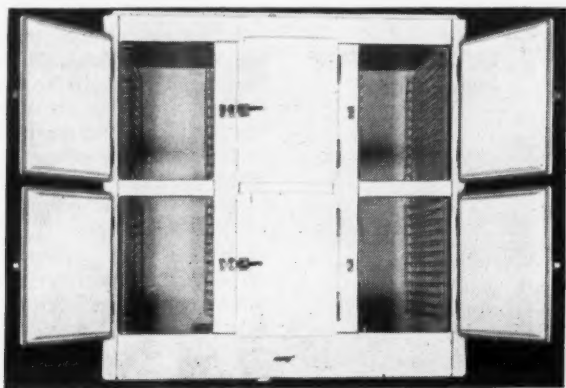
Potential customers for food freezers want to freeze their own fresh fruits, vegetables, and meats. You can't honestly offer a single-lid box as a Food Freezer; and you can't sell quick freezing with a cold storage box.

BTC Food Freezers are true, quick freezers with a separate sharp-freeze section that freezes up to 75 pounds of meat at one time — automatically on plate contact. A freezing load up to 120 pounds can be handled by a BTC Food Freezer every twenty-four hours without affecting the zero temperature storage.

Quick freeze new foods and maintain frozen foods at sub-zero temperature — that's the way to sell food freezers. BTC Food Freezers have all the features to help you do a better selling job. Take this opportunity now to join the experienced dealers who have the advantages of the profitable BTC franchise. Write today for full information.

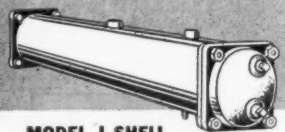
THE BREWER-TITCHENER CORPORATION
BINGHAMTON, N. Y.

THE LOUDON LINE FOR '49



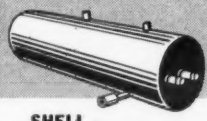
A new dough retarder to increase your sales to bakeries. Three sizes, full or half doors. Stainless steel or Dulux finish. High humidity. Exclusive hidden blower coils. Self-contained units available on special order.

LOUDON Sales, Inc. 2524-27th Avenue South
Minneapolis, Minnesota



MODEL J SHELL AND TUBE CONDENSERS
Low cost, easy-to-clean, sturdily built for long life—1/2 ton to 25 tons.

These condensers are for both FREON and Methyl-Chloride and are Underwriters Laboratory Approved. Your Jobber can supply you—or write direct



SHELL AND COIL CONDENSERS
Compact, inexpensive, efficient. Steel shell, copper coils. 1/2 H. P. to 5 H. P.



Continuously serving THE REFRIGERATION INDUSTRY Since 1919

ACME INDUSTRIES, INC.
JACKSON, MICHIGAN

Tough Jobs—A Specialty

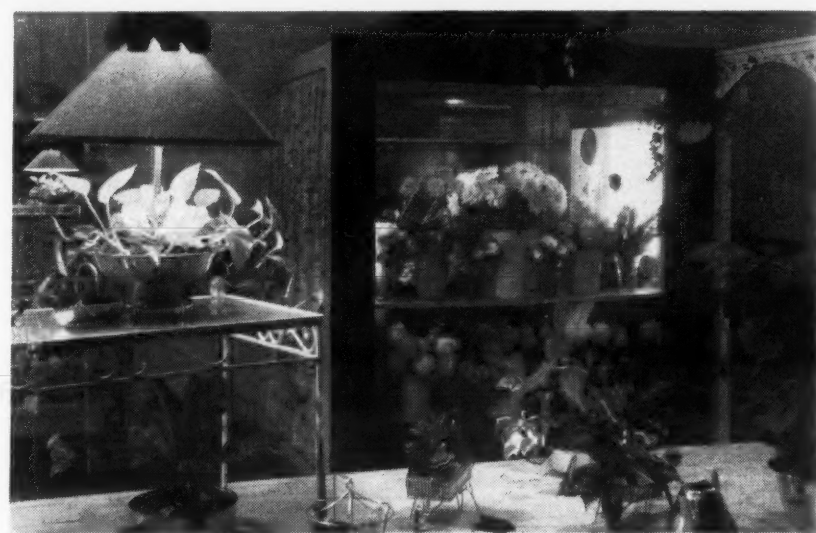
Memphis Dealer's Installation of an Even-Temperature 'Germ Box' Plus
A Fast-Cooling Vegetable Oil Walk-In Wins New Contracts

MEMPHIS, Tenn.—While it is possible to get along with merely merchandising refrigerated cases, water coolers, and package air conditioners, it is the commercial refrigeration and air conditioning dealer who is willing to tackle the "tough" refrigeration problems who will continue to expand year after year, believes Charles E. Hendricks, president of Memphis Refrigeration Co. here.

Although he went into business on the theory of merely merchandising refrigerated cases and fixtures, backed up by a comprehensive commercial and household refrigeration service, Hendricks is now known as something of a wizard in solving unique problems in local industry.

"We've built our business on these special jobs," Hendricks smiled, "and now it seems that through being willing to take on tough problems which other firms didn't want to handle, we have built ourselves quite a reputation in the field."

With eight employees, including three expert refrigeration mechanics who can also handle all types of air conditioning installations, Memphis Refrigeration Co. does considerable advertising, maintains 24-hour service on refrigeration repairs, and was among the first major-scale refrigeration firms in the city to set up a "contract program" for maintenance of air conditioning and refrigeration



On this, one of his "smaller" jobs, C. E. Hendricks made over an old-fashioned reach-in so that it could be used for modern floral display. Three walls were cut out and replaced by Thermopane glass.

installations through the city. "We hadn't intended to be installers at all," Hendricks said. "Except for putting in the fixtures we sold, and maintaining warranty. However, almost as soon as we were under way, we began getting demand for specialized air conditioning or refrigeration installations which has never let up since."

Typical of the highly unusual jobs which this southern refrigeration firm has handled are the following examples—all sold, engineered, and installed by Hendricks and his service crew, without any "outside help" whatsoever.

Couldn't Vary More Than 1.5°

First, one of the most unusual installations called for was a "germ box" installed in the biological cultural laboratories of the University of Tennessee. Due to the delicate nature of germs being cultured in flasks, the university demanded a 6 x 8-ft. walk-in refrigerator, which could be kept at an exact temperature, with less than 1 1/2° variance at any time.

In order to maintain so close a temperature control, it was necessary to install extremely sensitive controls, with both heating and refrigeration units closely balanced to maintain a smooth over-all 37° centigrade.

To meet this problem, Hendricks installed a special glass fibre insulated 6 x 8 x 7-ft. walk-in cooler, with Walker electric heating strips combined with a 1/2-hp. blower-and-coil air conditioning unit, installed inside of the box. The coil-and-blower unit, and the electric strips are installed side-by-side, controlled by Minneapolis-Honeywell controls, with supersensitive thermostats inside the box.

In order to control the 1 1/2° temperature spread, the thermostats had to be installed at three different places in the box, moved from spot to spot, until the ideal location was found to give them maximum sensitivity.

"We had to use three individual sets of controls before we found a combination which would respond to so small a change," Hendricks relates.

After much testing and experimenting, the box was approved, and functions perfectly, with the condensing unit operating until the thermostat touches off, the electric heating strips pushing on to restore any overlap of cold, and vice versa, throughout the day. There have been absolutely no germ losses in the laboratories since this installation was completed, according to Hendricks.

Industry has called upon the Memphis Refrigeration Co. to solve unusual problems. One of the toughest problems which Hendricks has met to date was posed by Southern Cotton Oil Co., a huge mill which provides

(Concluded on next page)

3 Big Reasons Why

HUNDREDS OF SERVICE MEN

PREFER TO SERVICE

HUSSMANN
REFRIGERATION EQUIPMENT



*They Admire the
Fine HUSSMANN Engineering*

Competent, experienced Refrigeration Service Men tell us that it's a real pleasure to work on dependable, HUSSMANN Equipment. It's simply the admiration one good workman always has for another's fine workmanship.



*They Appreciate the
Liberal HUSSMANN Contract*

Service Men who work for HUSSMANN in the field are protected by a contract which assures them complete protection as to rates, compensation, etc.



They Profit Through HUSSMANN'S Huge Volume

Because HUSSMANN Equipment is in such great demand—and because so many HUSSMANN Installations are constantly being made—Service Men in every section of the country get regular, frequent calls that result in a dependable, consistent source of income.

HUSSMANN
REFRIGERATION, INC.

HUSSMANN BUILDING • ST. LOUIS 6, MO.



Specify
DAVISON PA 100
refrigeration grade
SILICA GEL

in factory-charged
dryers bearing
this label or in bulk for refilling
PA 100 is your guarantee of all-around, superior performance
SEE YOUR JOBBER

NIAGARA

**"NO-FROST" METHOD
WITH SPRAY COOLERS**

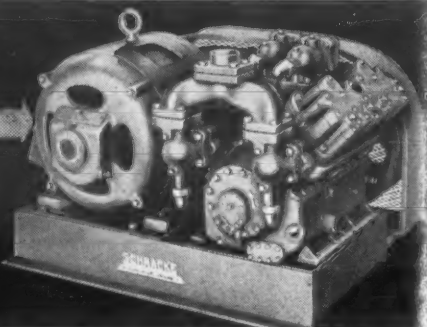
... gives always full capacity because there is no interruption for defrosting at sub-zero temperatures; protects quality in foods.

NIAGARA BLOWER COMPANY
30 Years of Service in Air Engineering
405 Lexington Ave., New York 17, N. Y.

**SCHNACKE
COMPRESSORS**

**5 to 50 HP
CONDENSING
UNITS**

5 to 25 HP



**More Tons of Refrigeration
With Less Horsepower**

Cool gas from the evaporator cools the entire outer surface of the cylinder sleeves in all SCHNACKE compressors, producing more tons of refrigeration with less horsepower. Force feed lubrication, and perfect balance, assures higher efficiency and vibrationless operation.

Schnacke THERMATROL Capacity Control Available with SCHNACKE Compressor and Condensing Unit
Write for details

SCHNACKE, INC.

1016 E. Columbia St., Evansville, Ind.

**ADVANCE
ENGINEERED
... Refrigeration
and Air Conditioning
Equipment**

Memphis Firm Finds Custom Jobs Pay

(Concluded from preceding page)

vegetable oils for use in making margarine and lard. The vegetable oils, for purification, are cooked at boiling temperatures, poured into metal containers, and must be cooled down before they can be closed and loaded into freight cars for shipping.

Slow Cooling Was Wasteful

With a heavy demand for the oils, the cotton oil mill management found that the long cooling period was extremely wasteful and delayed operations in many ways. Therefore, they came to Hendricks, and asked him to design a walk-in cooler capable of refrigerating the vegetable oil in its container down from more than 212° F. to 35° in a maximum of 16 hours for 5,000 pounds of the fat.

Accelerating the cooling in this way, it was felt, would do away with construction of another storage building, and much increase the total amount of production per day allowable in the plant.

To surmount this problem, Hendricks converted a room in the plant into a storage cooler, spent many hours in figuring the B.T.U. output of 2½ tons of hot oils, and then designed an "overpowered" air conditioning system to match. To meet the terrific heat load imposed by the hot oil, a 5-hp. G-E condensing unit was installed, which supplies refrigeration for three double coils spaced up and down the side of a 34 x 18 x 14-ft. high walk-in cooler.

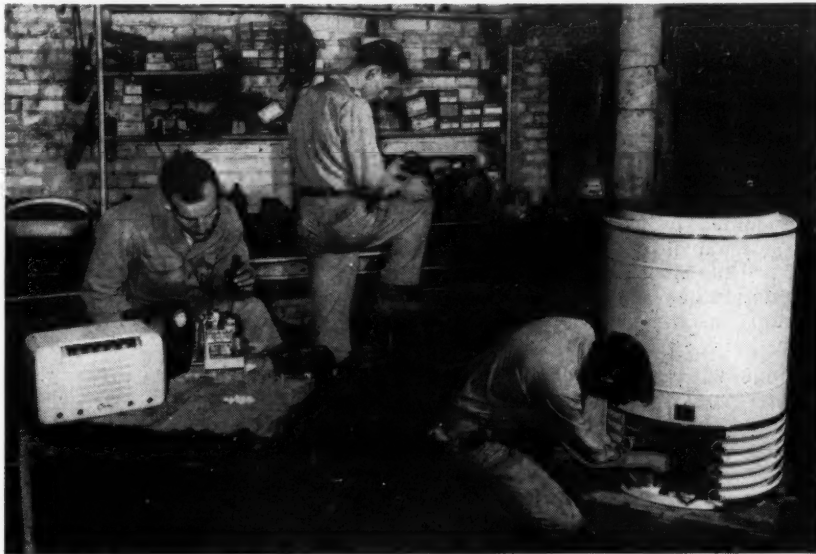
Task Done In 8-10 Hours

The 5-ton condensing unit is kept cool with city water, and operates almost continuously, but has proven itself capable of reducing the temperature to the proper degree in 8 to 10 hours.

The coils, installed one at each end, and one in the center of the room, are G-E fin-type units, and operate on a straight recirculation basis, no fresh outside air whatsoever being admitted. Chief difficulty encountered was the almost continuous operation of the condenser, which was solved by one-way passage of city water, which is not recirculated through the cylinder jackets.

Also, a method had to be devised of stacking the vegetable oil cans on pallets, in such a way that the recirculated air could flow through with maximum cooling effect. Despite the high heat-retentiveness of boiling fats, the system has worked out perfectly—and Hendricks has been handed several other refrigeration contracts as the results of successfully engineering this job.

Hendricks cheerfully accepts any type of difficult refrigeration assignment, large or small. On the "small side" was an unusually efficient flower display refrigerator which he recently constructed for a Memphis woman florist.



Part of the service department at Memphis Refrigeration Co. where mechanics are kept busy completing work that comes in as a result of Hendricks' success with other jobs.

Old Case Had No Display

Because of a heavy demand for correctly-refrigerated flowers, the store was losing business daily, and had been forced to rely on old-fashioned reach-in refrigerators around in the back, which, of course, had little or no display value. What was wanted was a handsome all-glass refrigerated display case of a walk-in variety, with plenty of carefully controlled refrigeration for a dozen types of flowers contained.

To solve this problem, Hendricks purchased an ordinary 6 x 8-ft. walk-in refrigerator, and completely remodeled it. First, three walls of the walk-in box were cut out and replaced with Thermopane double sheets of plate glass, with a dead-air space between to prevent vision-destroying condensation, and heat leakage. Two fluorescent lamps were installed inside, with a series of display shelves, and a bright stainless steel trim.

In the right side of the walk-in box, opposite the door, Hendricks installed a Larkin ½-hp. panel cooler unit, circulating a complete change of refrigerated air once a minute inside the case.

The interior of the walk-in box was done over with a handsome enameled finish to match the rest of the flower shop, and the condensing unit mounted on top of the box, where, although out of sight, it is exposed to cooling currents of air in the store, and readily accessible for repairs.

From this and other specialty jobs, Hendricks has received contracts for air conditioning a candy plant, building special refrigeration for developing blueprints used by U. S. government engineers, more flower box contracts, meat refrigerators, small comfort air conditioning systems, etc.

Hendricks does not believe in "keeping his light under a bushel." As soon as a job is completed, he budgets from \$5 to \$10 to have it photographed, and uses the resulting photograph, plus testimonial letters from pleased users to make up "sales presentation books" which are carried by two salesmen.

IN SINGLE UNITS OR CARLOAD LOTS You'll Find the SNO-CASE RIGHT!

Yes... we're shipping many of these SNO-CASE Frozen Food Merchandisers in CARLOAD lots... and plenty more to SINGLE UNIT buyers. In both cases there's complete satisfaction with appearance, efficiency, and price.

SNO-CASE is available in 14 and 18 cu. ft. sizes, for remote or self-contained installation. Features gleaming white baked enamel finish; stainless steel top; vacuum insulated rolling lids; fluorescent lighted superstructure with illuminated sign; adjustable shelves; Copelametic sealed unit; wrapped liner plus COLD PLATES for refrigeration. Call or write today for folder.

Model 4718-c
SNO-CASE
18 cu. ft.



Distributors—
Write for Franchise Data

HALDORF
MANUFACTURING COMPANY

1435-37 NORTH 31ST ST., PHILADELPHIA 21, PA.

Gloekler

Model 2 FDI
25 Cubic Foot

Model 2 FDF (Blower)
Also Available

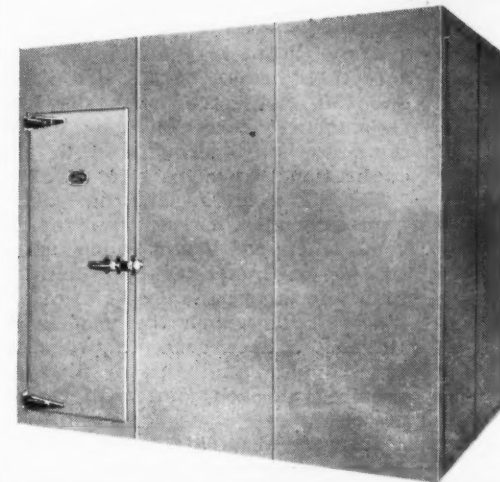
Reach-In refrigerators
from 20 to 45 cu. ft. with
either blower or ice cube
maker coil.



Model 6-9
ADD-TO
Storage
Refrigerator

Special sizes of Storage
Refrigerators now available.

Several territories
still available - Write
for details.



Gloekler REFRIGERATOR COMPANY
ERIE • PENNSYLVANIA

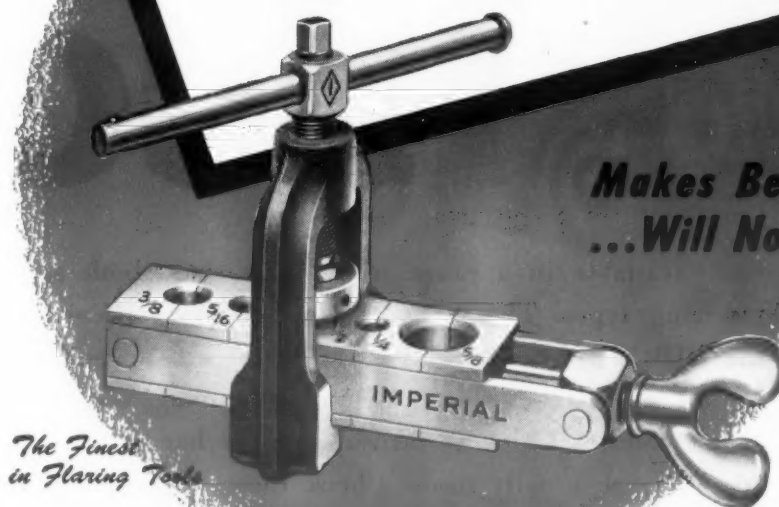
McPhail Aids Savage Output

UTICA, N. Y.—H. R. McPhail has been named assistant works manager of the Utica plant of Savage Arms Corp. He has been director of refrigeration engineering at the plant and has an extensive background of supervisory and executive experience in the refrigeration field with nationally known companies.

Airflow Moves In Brooklyn

BROOKLYN—Airflow Refrigeration, Inc., service and parts firm here, has recently announced its removal to new quarters at Third Ave. and 64th St.

New IMPERIAL Hi-Duty FLARING TOOL



The Finest
in Flaring Tools

**Makes Better Flares Faster
...Will Not Score the Tubing**

SPEEDY, SINGLE NUT CLAMPING

Here is an important new advance in flaring tools... a new tool that makes precision S.A.E. flares faster and easier—and makes them without scoring the tubing. Flares the most popular sizes of soft copper, brass and aluminum tubing.

In place of the usual bar it has a die holder with sliding dies for clamping the tubing. Only one thumb screw to tighten—a ball thrust bearing makes it easy to turn.

The extra depth, smooth surface dies hold the tubing tightly without scoring. Freedom from scoring is considered by many engineers to be an important advantage in making longer lasting flare joints.

Yoke is made of forged steel; steel dies are heat treated. Tool is extra strong and durable. See your jobber for full information on this fast working tool and others in the complete Imperial Tubing Tool Line. Ask for Folder 347.

No. 300-F Imperial Hi-Duty Flaring Tool. Flares 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. Tubing. Each.....\$5.20

THE IMPERIAL BRASS MFG. CO., 534 S. Racine Avenue, Chicago, Illinois

IMPERIAL

See
Your
Jobber

Fittings • Valves • Filters • Driers • Floats • Charging Lines
Tools for Cutting, Flaring, Bending, Pinch-off and Swedging

HAS NEW DIE HOLDER
WITH SLIDING DIES



1. Simply insert tubing between segments of the proper size die block.



2. Swing cam action clamp into position against end die and tighten thumb screw.



3. Slide yoke over end of die holder into position over tubing to be flared, and turn compressor cone down firmly. The result is a precision 45° flare without scoring the tubing

Available from
1/2 to 10 H.P.

**CLEANABLE
DOUBLE-TUBE
COUNTER-FLOW
WATER-COOLED
CONDENSERS**

Write for literature

Halstead & Mitchell
BESSEMER BLDG.
PITTSBURGH 22, PA.

DON'T REBUILD Armatures

Save BY BUYING NEW
**WAGNER
Armatures**

They have new core iron and windings, new commutators properly undercut, new shafts, new centrifugal short circuiting devices, new rocker arm and brush holder assemblies with brushes. They are dynamically balanced, fully tested, ready to install. Get them now from your Wagner distributor. Name on request.

Wagner Electric Corporation
ESTABLISHED 1891
8471 Plymouth Avenue, St. Louis 14, Mo., U.S.A.
ELECTRICAL AND AUTOMOTIVE PRODUCTS

FREON-12

65¢ per pound
F.O.B. Fort Smith, Ark.

145 LB. KINETIC
CYLINDERS

Call, Wire or Write
PENO ROBISON
Ft. Smith, Ark.

FHA Outlines Standards for Using Aluminum Vent Pipes In Plumbing

LOUISVILLE, Ky.—The Federal Housing Administration's acceptance of aluminum for use in vent pipes in plumbing systems enables that metal to make greater contributions to the building industry, according to Reynolds Metals Co. here.

FHA's Underwriting Division has issued standards accepting aluminum tubing or standard IPS aluminum pipe for this application.

The standards are contained in a revised issue of Bulletin UM-1, Aluminum Building Products, section 8 of which is devoted to the new application.

Reynolds pointed out that FHA had previously approved aluminum for use in roofing, flashing, termite shields, gutters, downspouts, siding, windows, and duct work. Aluminum nails have also been accepted for use with nearly all types of building materials.

Alloys listed in Bulletin UM-1 as acceptable include 2S, 3S, 61S, R361, and 63S. All have "unusually high resistance to corrosion under conditions normally encountered in this application," Reynolds said.

The standards specify that aluminum vent pipes may be used for dry vents where the lowest connection to the ferrous metal piping is not less than 6 in. above the flood rim of any plumbing on which the vent is installed. Proper cathodic protection for the aluminum pipe or fitting is required at each joint with ferrous metals.

In order to facilitate joining where

fitting is necessary within the aluminum vent system or where the system is joined to iron or steel pipe, use of standard IPS sizes is recommended. In all other installations, aluminum tubing may be used. The minimum recommended wall thickness is 1/16-in.

Fittings within the system should be either cast, wrought, or forged aluminum. Forged or wrought fittings may be specified as 2S, 3S, A51S, 53S, R353, 61S, R361, or 63S. Cast fittings may be specified either as 43, B214, or 356 alloy.

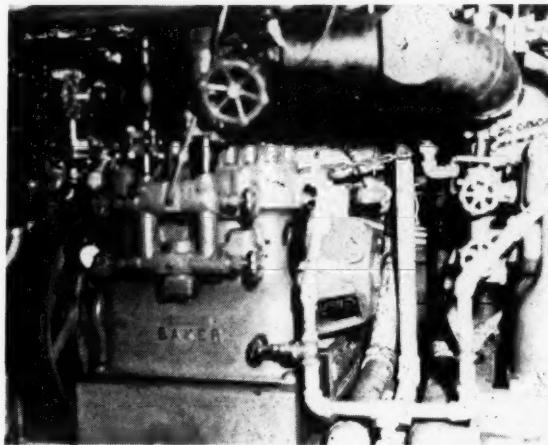
Where aluminum fittings are not available, galvanized iron or steel fittings may be used. Where not galvanized, the iron or steel fittings must be provided with acceptable cathodic protection. This may be secured, according to Reynolds, by inserting a zinc sleeve or washer into the fittings ahead of the pipe.

FHA standards recommend that a thread lubricant be used in threaded joints involving aluminum. Such lubricants as zinc dust in petrolatum, Zinc Stearate, or any thread lubricant conforming to Army-Navy Aeronautical Specification AN-C-53, Amendment 3, are designated as satisfactory.

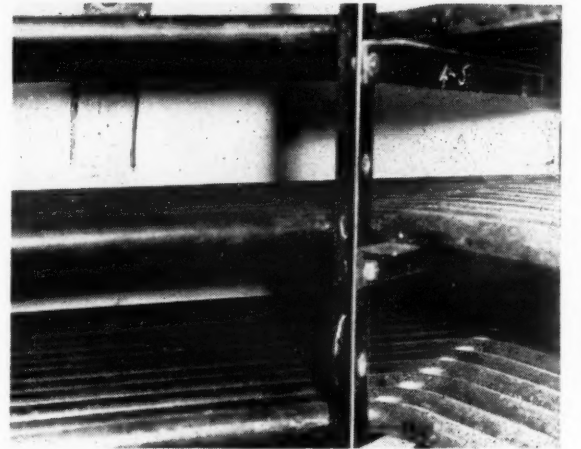
Sheet aluminum flashing is recommended for use around the area where the vent penetrates the roof, although galvanized flashing may be used when aluminum is not available. Use of copper or lead flashing with aluminum vent pipes is not acceptable.

No Fish Story

Salmon To Be Frozen at Sea In N'west Seiner for 1st Time



In the crowded engine room of the 87-ft. seiner, Three Star, are these two four-cylinder Baker compressors turned by 15-hp. motors. They are part of \$20,000 ammonia system installed in the Three Star, whose home port is Everett, Wash.



This is a view of the shelves in the sharp room of the Three Star where 1,300 ft. of header-type coils will freeze 5 tons of salmon in an estimated 14 to 16 hours at 30° below zero.

\$20,000 Ammonia System In Purse Seiner To Freeze, Hold at 0° 100 Tons of Salmon

EVERETT, Wash.—For the first time in the history of Pacific Northwest fisheries, a small purse seiner has been equipped with sharp freeze and holding refrigeration facilities, which will enable it to freeze salmon while at sea. The vessel is the Three Star, an 87-ft. seiner whose home port is Everett, Wash.

The refrigeration system was installed by Northwest Baker Ice Machine Co., Inc., of Seattle, at an approximate cost of \$20,000. The ship will fish in Alaskan waters and during the season expects to make two round trips between the Aleutian Islands area and Everett. Only choice sockeye salmon will be frozen and it will be sold on the fresh market, or to a cannery in Everett.

The Baker company installation is an ammonia system, with ammonia thermal valves and back-pressure regulating valves on the hold coils. Two four-cylinder Baker compressors, with a 3 1/2-in. bore and 3 1/2-in. stroke, were installed in the crowded engine room of the Three Star. They are turned by 15-hp. motors.

The bow hold of the ship is the sharp-freeze room and it has a capacity of 5 tons of fish on shelves

built of 1,300 ft. of 1 1/4-in. low-resistance, packed header-type coils.

Air circulation is achieved by a fan driven by a 1/2-hp. electric motor. Although the temperature of the sharp-freeze room can be dropped to -40° F., it will be maintained at -30° F. Estimates are that 14 to 16 hours will be required to freeze 5 tons of salmon.

When the fish are removed from the sharp-freeze room they will be glazed to prevent dehydration by dipping them twice in water to coat them with ice. The holding room has a capacity of 100 tons and its temperature will be held at 0° F. by 2,000 ft. of 1 1/4-in. galvanized ammonia pipe.

Insulation is an important factor in maintaining temperatures at sea and the sharp-freeze room was insulated with 6 in. of cork and the holding room with 4 in., with plywood sheathing placed over it. Moeller dial thermometers in the shop's galley show temperatures in the sharp and holding rooms.

The Three Star is owned by Andy Marinovich and Paul Martinis. It is powered with a 300-hp., 6-cylinder diesel engine.

ADAPTERS WROT FROM TUBES

BY
NIBCO

Now available in a range of popular sizes, both straight and reducing types. These adapters are a perfect complement to the NIBCO line of Wrot Fittings. They are formed from tubes by an exclusive process originated during the war, of red brass material which is far superior to bar stock from which adapters are usually made. Check these 10 points of superiority; mail coupon today for detailed information. No obligation.

- | | |
|--|--|
| 1
Made from tube | 7
Thickness of cup approximately equal to that of the tube, making soldering quicker and more foolproof |
| 2
Entire fitting wrot or forged | 8
Cup extended away from threads. Comparatively little heat transferred into threaded section |
| 3
Red brass material | 9
Low initial cost |
| 4
Perfectly formed threads | 10
Range of sizes—1/4" to 2" |
| 5
Husky wrench hexes | |
| 6
Manufactured to A. S. A. standards throughout | |

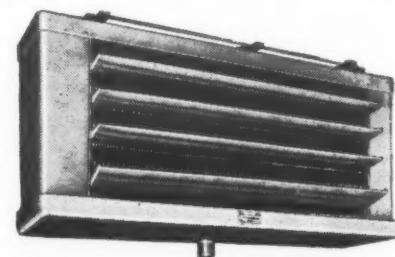
**10
POINTS OF
SUPERIORITY**

NORTHERN INDIANA BRASS CO.
801 Plum Street, Elkhart, Indiana

Gentlemen:

Please send detailed information about NIBCO Wrot Adapters from tubes.

Name _____
Street _____
City _____ State _____



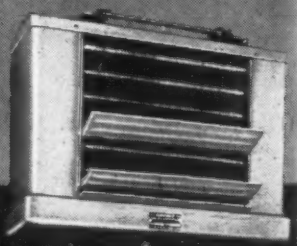
**RIGIDBILT
STANDARD AND
LOW TEMPERATURE
UNIT COOLERS**
are built in a wide variety of sizes for all commercial applications.

*Rigidbilt
is Better Built*

Rugged fin and tube assembly delivers full rated cooling. Smooth, slow speed, 1000 RPM motors gently circulate air thruout cooler, assuring minimum dehydration of stored products.

Attractive, well-proportioned, heavy gauge steel housing is finished inside and out with durable, baked on grey wrinkle enamel. Drip pan on Low-Temperature water-defrost units has sealed in insulation. Labor saving, "One-Man-Hanger" included with either unit.

Send for complete descriptive literature and prices on Rigidbilt Custom Engineered Coils, Product Coolers and Unit Coolers.



RIGIDBILT, INC.

FORMERLY: MANUFACTURERS FIN COIL CO.

2850 FULTON ST., CHICAGO 12, ILL.

Refrigeration Problems And Their Solution

By Paul Reed

For Service and Installation Engineers



Paul Reed

Comparative Costs of Home Heating Fuels(2)

COST OF ELECTRICITY FOR HEATING

In the last section, the fuel is electricity, used (in the first three lines of the section) in resistance heaters to directly develop heat, and the circulation method is the gravity type. This method is assumed to have an efficiency of 98%, and since one kilowatt of electricity is equivalent to 3,415 B.t.u., one kwh. will develop 3,347 B.t.u. per hour and 40,340 kwh. will be required to supply 135 million B.t.u. per year. At one cent per kwh. the annual electric bill will be \$403.40; at 1½ cents per kwh., \$605.10; and at 2 cents per kwh. \$806.80.

It is recognized that the straight resistance method of electric heating would be prohibitively expensive at the electric rates shown of 1, 1½, and 2 cents per kwh. They are shown, however, to bring out the contrast in the amount of electricity used by the straight resistance method and by the electric motor operated heat pump.

In some parts of the Northwest and in Canada, where government owned water-power-produced electricity is available at approximately 1, 1½, or 2 mills (one mil = 1/10 of a cent) instead of 1, 1½, or 2 cents, the resistance method of electrical heating is economically feasible and in fact considerably used. Whether or not these extremely low rates are in line with actual costs of producing and distributing the current is a politically debated subject.

ELECTRICITY COST FOR HEAT PUMP

By using the heat pump, the electricity becomes the carrier for transporting "free" heat from the outside air or water, instead of the electricity being used directly as a "fuel" as in the resistance method.

Using the heat pump (which is, of course, a "reversed" refrigerating system arranged to carry heat into instead of out of the house) it is quite feasible for one kilowatt-hour of power, which is equivalent to 3,415 B.t.u., to bring 3, 3½, or 4 times that much heat into the house.

Instead of referring to efficiencies of 300, 350, and 400% we refer to "Coefficients of Performance" of 3, 3½, and 4. Thus with a COP of 3, one kwh. will provide 3 x 3,415 or 10,245 B.t.u.; at a COP of 3½, 11,953 B.t.u.; and at a COP of 4, 13,660 B.t.u.

At these COP, 135 million B.t.u. will require a yearly consumption of electricity of 13,185, 11,300, and 9,890 kwh., respectively. At 1, 1½, and 2 cents per kwh. this will result in a yearly cost of electricity for heating (using the heat pump) of from as low as \$98.90 for 1-cent electricity with a COP of 4, to \$263.70 for 2-cent electricity with a COP of 3.

In comparing these annual electric bills for the heat pump, with fuel costs, it will be seen that they compare very favorably. They are not quite as low as coal or natural gas but are as good or better than the costs for oil or artificial gas.

So the possibility of using the heat pump to provide electric heating in competition with the cost of some of the commonly used fuels is not at all hopeless. In fact, it becomes brighter, the higher becomes the cost of coal and oil, for high

efficiencies in generating electric current tend to narrow the cost gap between the direct fuel costs for heating using the electrically driven heat pump and the fuel burning furnace.

On the other hand, this is only part of the story. It is only the direct cost of the fuel, and does not include the interest on the investment in equipment, cost of repairs, maintenance, etc.

USE OF HEAT PUMP ECONOMICALLY FEASIBLE

Somewhat offsetting this however, is the dual-purpose heat-and-cooling ability of the heat pump as compared to the single-purpose, heating-only ability of the furnace. The purpose of this table is simply to present factual comparison that may be used in different parts of the country by choosing the heat loss, fuel costs, and

other conditions that apply to that locality and interpolating the results.

The assumed efficiencies, heat content, and fuel costs, while not accurate for all conditions and regions, are reasonable averages. Variations may be corrected proportionately.

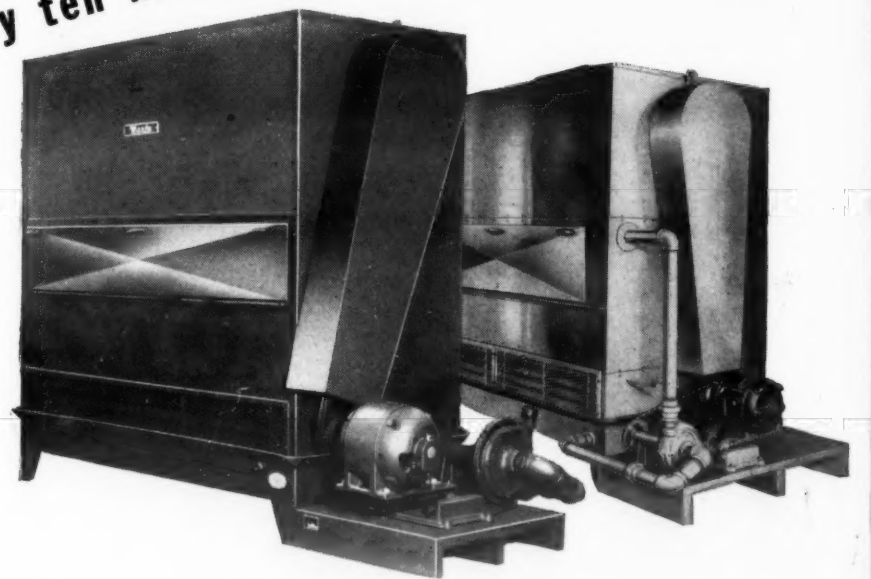
The table does, however, give some basis for comparison on a fixed heat loss, and allows an evaluation of the relative costs of various fuels and of electric heating.

TABLE 1—COMPARATIVE FUEL COSTS
For a 6-Room Insulated House with a Heat Loss of 135,000,000 B.t.u./Year

1	2	3	4	5	6	7	8	9
Fuel	Heat Content B.t.u.	Firing Method	Circulation Method	Efficiency % or COP	Net Heating Effect B.t.u. per Unit	Units per Year	Cost of Fuel—\$	Total Yearly Fuel Cost—\$
Coal—Anthracite	13,000/Lb.	Hand	Gravity	55%	7,150	18,900	10/Ton	94.50
"	"	"	"	"	"	"	15/Ton	142.25
"	"	"	"	"	"	"	20/Ton	199.00
"	"	Automatic	Forced	65%	8,450	16,000	10/Ton	80.00
"	"	"	"	"	"	"	15/Ton	120.00
"	"	"	"	"	"	"	20/Ton	160.00
Coal—Bituminous	14,000/Lb.	Hand	Gravity	55%	7,700	17,532	10/Ton	87.53
"	"	"	"	"	"	"	15/Ton	131.47
"	"	"	"	"	"	"	20/Ton	175.30
"	"	Automatic	Forced	65%	9,100	14,850	10/Ton	74.25
"	"	"	"	"	"	"	15/Ton	111.37
"	"	"	"	"	"	"	20/Ton	148.50
Oil—No. 1	136,000/gal.	Automatic	Forced	70%	95,200	1,428	12/gal.	171.36
"	"	"	"	"	"	"	16/gal.	201.92
"	"	"	"	"	"	"	12/gal.	228.48
Oil—No. 2	138,500/gal.	Automatic	Forced	70%	96,950	1,392	12/gal.	167.04
"	"	"	"	"	"	"	16/gal.	194.88
"	"	"	"	"	"	"	12/gal.	222.72
Oil—No. 3	141,000/gal.	Automatic	Forced	70%	98,700	1,367	12/gal.	161.04
"	"	"	"	"	"	"	16/gal.	191.38
"	"	"	"	"	"	"	12/gal.	218.72
Gas—Natural	1,000/cu. ft.	Automatic	Gravity	75%	750/cu. ft.	180,000 cu. ft.	40/M cu. ft.	72.00
"	"	"	"	"	"	"	45/M cu. ft.	81.00
"	"	"	"	"	"	"	55/M cu. ft.	99.00
"	"	"	Forced	80%	800/cu. ft.	168,750 cu. ft.	40/M cu. ft.	67.50
"	"	"	"	"	"	"	45/M cu. ft.	76.00
"	"	"	"	"	"	"	55/M cu. ft.	93.00
Gas—Artificial	550/cu. ft.	Automatic	Gravity	75%	412/cu. ft.	327,670 cu. ft.	55/M cu. ft.	180.00
"	"	"	"	"	"	"	60/M cu. ft.	196.50
"	"	"	"	"	"	"	65/M cu. ft.	213.00
"	"	"	Forced	80%	440/cu. ft.	306,818 cu. ft.	55/M cu. ft.	168.75
"	"	"	"	"	"	"	60/M cu. ft.	184.25
"	"	"	"	"	"	"	65/M cu. ft.	199.50
Electricity	3,415/kwh.	Resistance	Gravity	98%	3,347/kwh.	40,340/kwh.	.01/kwh.	403.40
"	"	"	"	"	"	"	.015/kwh.	605.10
"	"	"	"	"	"	"	.02/kwh.	806.80
Electricity	"	Heat Pump	Forced	COP—3	10,245/kwh.	13,185/kwh.	.01/kwh.	131.85
"	"	"	"	—3	"	"	.015/kwh.	197.78
"	"	"	"	—3½	11,953/kwh.	11,300/kwh.	.01/kwh.	113.00
"	"	"	"	—3½	"	"	.015/kwh.	169.50
"	"	"	"	—4	13,660/kwh.	9,890/kwh.	.02/kwh.	228.00
"	"	"	"	—4	"	"	.01/kwh.	98.90
"	"	"	"	—4	"	"	.015/kwh.	148.35
"	"	"	"	—4	"	"	.02/kwh.	197.80



save nine drops of every ten with these MARLO "water-misers" *



Where water is scarce and expensive — or where sewerage is inadequate — these "twin" Marlo Cooling Towers and Evaporative Condensers solve the problem.

Compact and efficient, they use the same water over and over — save 90% of normal water consumption and water cost — save space! And they're built so sturdy that many in use over 10 years are still giving faithful, economical service.

* MARLO COOLING TOWERS and EVAPORATIVE CONDENSERS

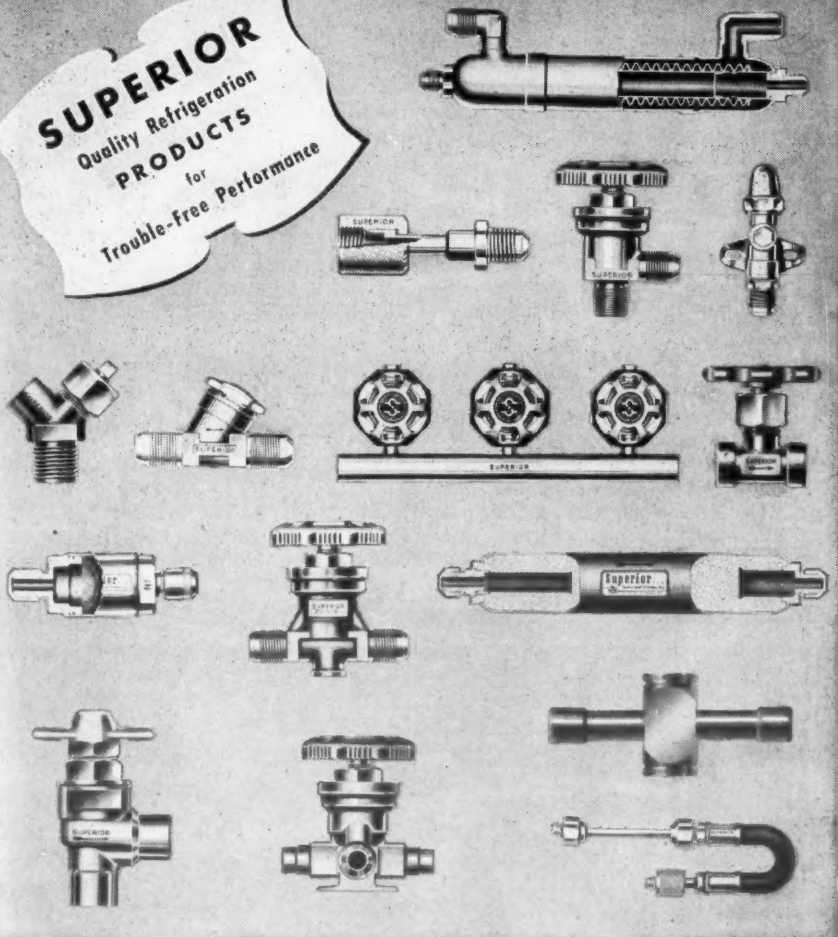
Ultra-modern A. S. Aloe building in New Orleans—11,000 sq. ft., completely air conditioned, using a Marlo EC 40 Evaporative Condenser.



MARLO-HEAT TRANSFER
Since 1925

MARLO COIL CO. / ST. LOUIS 10, MO.

SUPERIOR
Quality Refrigeration
PRODUCTS
for
Trouble-Free Performance



Designed and Engineered for Maximum Performance...

In all refrigeration and air-conditioning systems, the SUPERIOR line includes the famous Diaphragm Packless Line valves; globe, charging, purging or drain valves; hand expansion valves; pressure cup (wing cap) globe valves; packed line, angle, compressor and cylinder valves; check valves; liquid indicators and sight glasses; quick couplers; gauge manifolds; economizers (heat-exchangers) and manifolds; dehydrators and filters; rapid-chargers (refrigerant transfer systems); charging hose; and SAE flare fittings.

If you haven't a copy of SUPERIOR Catalog R-2, request one today

Superior Valve and Fittings Co.
1509 WEST LIBERTY AVE. PITTSBURGH 20, PENNA.
OFFICES IN PRINCIPAL CITIES — STOCKS: CHICAGO (6) — LOS ANGELES (15) — JOBBERS EVERYWHERE

How To Service Room Air Conditioners-- Start with the Electrical System First

There are still many weeks of hot weather ahead, which means continued peak operation of room air conditioners, and perhaps calls for service. So AIR CONDITIONING & REFRIGERATION NEWS is presenting below the first of a series of articles describing the major check points for servicing room units.

The articles were prepared from service literature of Philco Corp. and are published with Philco's permission. The information, however, will apply to most makes.

Service of a room type air conditioner is similar in several ways to servicing a household refrigerator. When you receive a service complaint on a conditioner that won't operate, you start out the same way you should for a refrigerator that won't work; that is, check the electrical system.

ELECTRICAL TEST PROCEDURE

The procedure suggested by the Service Division of Philco Corp., which it believes will apply to any small air conditioner, is as follows:

If the unit is inoperative—
1. Check for voltage at the wall receptacle with a test light or a voltmeter. If the test shows no voltage at the wall receptacle, check the fuses at the service entrance switch of the residence or office.

2. If voltage is available at the wall receptacle but neither fan nor compressor motor will operate, the trouble would ordinarily be an open circuit in the service cord, or in the connection to the wall receptacle or control switch.

3. To check the service cord, remove the cover from the junction box and check for voltage across the terminal points of the cord. If no voltage is available at this point, install a new service cord.

4. If the service cord is all right, check the control switch, first disconnecting the service cord from the wall receptacle. Remove any two of the switch leads and check the circuits through the switch with a continuity tester, such as an ohmmeter.

Fig. 1 shows the operating action

of a typical rotary control switch used in room air conditioners. With the switch in the "fan only" position, terminals 1 and 2 should show continuity and terminals 2 and 3 an open circuit.

In the "off" position there should be no connections between any of the three switch terminals, while in the "cool" position the tester should indicate a circuit or connection between all three.

The control switch may be tested by temporarily placing a wire jumper between terminals 1 and 2 and reinserting the service-cord plug in the wall receptacle. Place the control switch in "fan only" position. If normal fan motor operation is restored by the jumper, the switch is at fault and must be replaced.

The same check on the other switch contacts may be made by connecting the jumper between terminals 2 and 3 and noting the effect on the compressor motor. Proper terminals for this test may be found by trial if the leads are not identified. With the wiring as shown in Fig. 1, no harm will result if terminals 1 and 3 are temporarily joined.

CHECKING COMPRESSOR MOTOR

With the power cord disconnected, remove the cover from the motor terminal box. Plug in the service cord and check for voltage at the motor terminals. A volt-meter is preferable for this. The motor is open circuited if it does not operate when normal voltage is indicated at the motor terminals.

CHECKING FAN MOTOR

Fan motors with low horsepower ratings do not ordinarily have a terminal box on the motor. The supply cord is a part of the motor, and tests for voltage must be made where this cord joins the wiring in the unit or junction box. When checking the fan motor, follow the compressor motor procedure.

CHECK MOTOR BEARINGS

Check the bearings for any lateral and up and down motion of the shaft. If any motion of the shaft within the bearings can be felt, it is an indication that the motor requires service repairs and that new bearings or shaft-end bushings should be installed.

Other motor troubles, such as a shorted winding, are usually indicated by the smell of burned insulation or other evidence of overheating. If the air conditioner has a direct current motor, remove the motor brush cover-plate and inspect the brushes for bind, wear, and good contact.

CHECKING LINE-VOLTAGE LOAD

Line voltage at the receptacle should be checked under both full-load and no-load conditions. Insert a duplex outlet plug into the power outlet. Plug the conditioner power cord into one of the outlets and the voltmeter plug into the other. Read the no-load voltage with the control turned off, and the full-load voltage with the control turned to the "cool" position.

The voltage at the conditioner should not deviate more than 10% from the no-load line voltage. If the full-load voltage on a 115-volt line drops more than 10% below normal (about 11 volts), it indicates one or more of the following troubles:

1. Lines overloaded.
2. Supply lines too small.
3. Defect in the motor or wiring of the unit.

A normal wattage reading is an excellent indication that the conditioner is operating at its maximum efficiency.

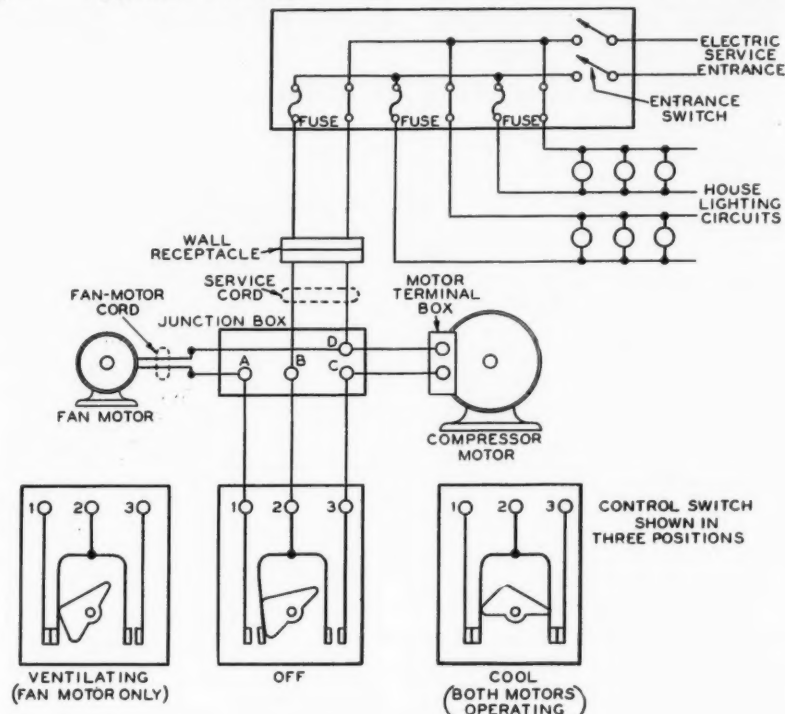
A low wattage reading indicates that the unit is not operating at its maximum condition. This condition may be caused by a low refrigerant charge, defective expansion valve, clogged strainer, excessively dirty filter, defective compressor valves, or a loose drive belt.

A high wattage reading indicates one or more of the following: low line voltage, abnormally dirty condenser, obstruction to airflow through condenser, overcharge of refrigerant, defective expansion valve, air in the system, motor sticking, or binding from lack of lubrication, or a sticking or binding compressor.

PRESSURE-OPERATED SWITCHES

Used on water-cooled models, a pressure-operated switch (see Fig. 2) cuts out the compressor motor when the refrigerant pressure rises to 185 lbs. After the switch has broken the circuit, it resets automatically when the pressure falls to approximately 150 lbs.

Fig. 1—Typical Wiring Diagram for Room Air Conditioner



It is good practice to check the high-pressure cutout switch when servicing a room unit. Proceed as follows:

1. Install a pressure gauge at the compressor discharge service valve.
2. Shut off the cooling water supply.
3. Operate the unit and watch the pressure gauge. The cutout should stop the unit when the pressure reaches 185 lbs. If it does not open the compressor motor circuit at this pressure, adjust the switch.

Never allow the pressure to exceed 190 lbs.

The cutout pressure is the cutin point pressure plus the additional pressure obtained by adjusting the pointer on the vertical "differential increase" scale. These adjustment scales are located on the left-hand side of the control case. To adjust the control for both cutin and cut-out pressures:

1. Turn the differential adjusting nut counterclockwise until the pointer reaches the bottom of the differential increase scale.
2. Turn the main adjusting screw to adjust the cutin point pressure to 150 lbs. as shown on either the cutin point scale or on the installed gauge. Turning the screw clockwise increases the cutin point pressure; counterclockwise decreases it.
3. Turn the differential screw clockwise until the control stops the unit at a pressure of approximately 185 lbs. To reach these refrigerant pressures, it is necessary to diminish or shut off the cooling water supply.

REPLACING CONTROL

The high pressure cutout should not be dismantled in the field. If replacement parts are required, replace the whole control instead. Replacement controls have the pressure bellows dehydrated and sealed by a plug at the flare nut. Do not remove this plug until ready to install the control. Proceed as follows:

1. Remove the U-panel.
2. Install a suction gauge at compressor suction service valve.
3. Turn suction service valve stem all the way clockwise and operate the compressor until the gauge reads slightly above zero, then turn compressor off.

4. Close the compressor discharge service valve all the way clockwise.

5. Disconnect the pressure line at the flare fitting on the bottom of the cutout.

6. Disconnect the two wires at the cutout terminals.

7. Remove the screws which hold the control to the mounting bracket.

8. Install a new cutout, connect the wires, attach the pressure line, and turn the pressure-line connector to finger tightness.

9. Open the suction service valve momentarily and blow any air from the pressure line. Then close the valve and tighten the pressure-line connector.

10. Test for leaks with a halide torch.

11. Remove the suction gauge and replace seal cap.

Since this control contains a mercury-tube switch, it must be leveled after the conditioner has been installed. Pendulum level indicator is located inside the control case. Proceed as follows:

1. Remove the control-case cover.
2. Loosen the control mounting screws and shift the control in its mounting until the pendulum hangs at the mark scribed in the case.
3. Tighten mounting screws and replace cover.

REPLACING A MOTOR

When it becomes necessary to install or repair an electric motor, the serviceman should always check the data given on the manufacturer's name plate which is mounted on the motor frame.

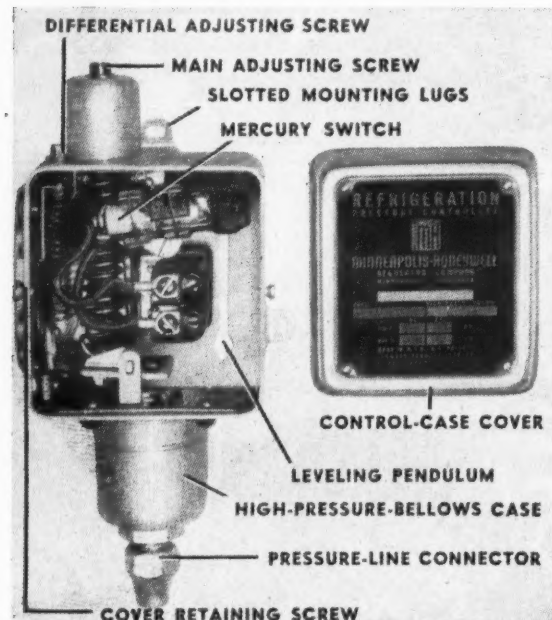
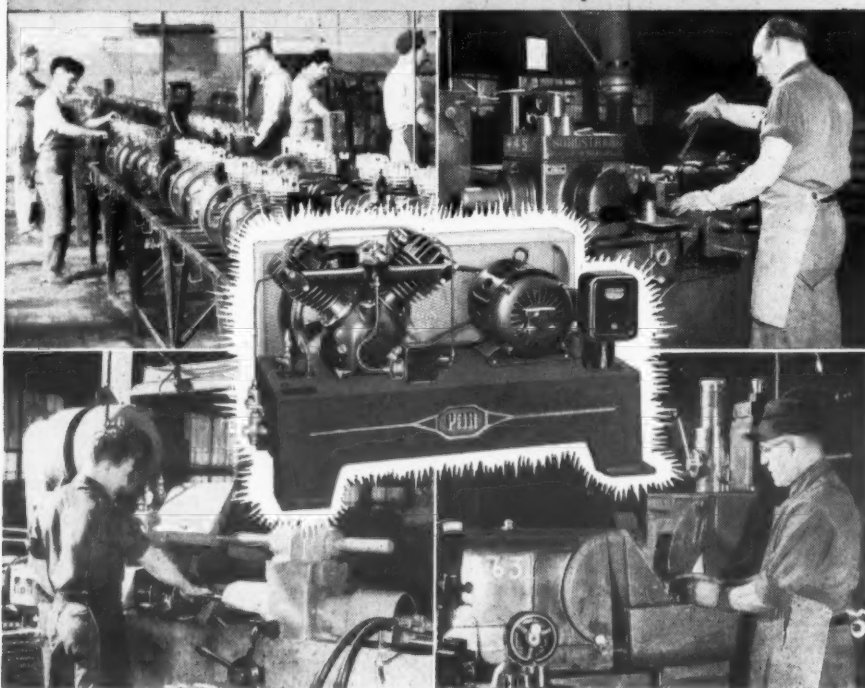


Fig. 2—This or similar pressure-operated switches are employed on water-cooled room air conditioners. Adjustment of the cutin and cutout points is described in the accompanying article.

LYNCH Precision Manufacture Builds Dependable PAR Units



Skilled Workmen... Precision Machines...

the first requisites in the manufacture of quiet, efficient condensing units. Illustrated are a few of the workmen and special purpose machine tools fulfilling these requirements in the production of Par Condensing Units.

Par Units are engineered and manufactured especially for the commercial refrigeration field. In a wide range of models and sizes from 1/6 h.p. close-coupled units up to 5 h.p. heavy duty commercial units. With Par there's a proper-size, proper-type unit to permit "tailored-installations"—giving balanced performance for top economy and efficiency. Ask your Par wholesaler for details or write direct for Par Catalog R-99.

Par—Condensing Unit Line sold exclusively through Franchised Refrigeration Equipment Wholesalers.

By Comparison — You'll Buy PAR

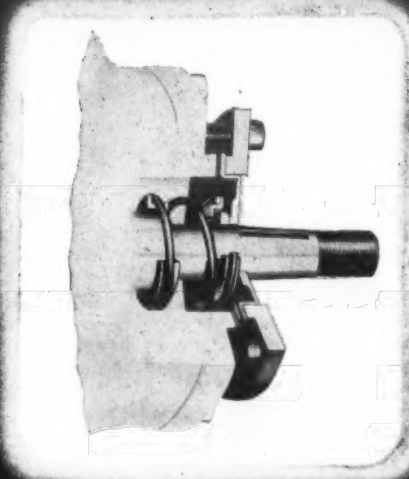
LYNCH CORPORATION

Par Compressor Division

TOLEDO 1, OHIO U.S.A.



ROTARY SEAL REPLACEMENT UNITS



UNIT No. 14222

SEE YOUR JOBBER!

2020 NORTH LARRABEE ST. • CHICAGO, 14, ILLINOIS, U.S.A.
CANADIAN AGENT: 2025 ADDINGTON AVENUE • MONTREAL, 28, QUEBEC, CANADA

are available not only for the smaller size compressors normally used for household refrigerators, but also for...

MANY OF THE LARGER SIZES AS USED IN COMMERCIAL, SEMI-COMMERCIAL AND AIR CONDITIONING INSTALLATIONS FOR OVER 848 MODELS AS SHOWN IN OUR STOCK LIST



Modified Electronic Air Filter Handles 'In-Between' Jobs

New Precipitator Design Claimed to Cut Costs by Eliminating Ionizer Unit

LOUISVILLE, Ky.—For air cleaning applications where more efficiency than that of a mechanical filter is required, but the high efficiency of an electronic precipitator is not needed, a modified electronic air filter has been developed by the American Air Filter Co. here.

Designated the "Electro-PL," the new filter is basically an electronic precipitator without an ionizing unit and contains a collector element of electrostatically charged Airmat paper.

Elimination of the ionizer not only reduces the first cost of the filter below that of an electronic precipitator but also results in lowered power consumption, the company claims.

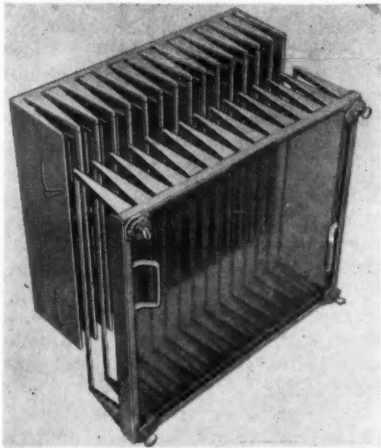
The Airmat paper used is a laminated cellulose product composed of a number of plies of porous, tissue-like sheets formed of short fibers in "jack-straw" arrangement. It is also used as a filtering medium in mechanical filters.

When an electrostatic charge is applied to the paper, the plies tend to separate, and each individual fiber becomes a collecting electrode which attracts and holds dust and smoke particles. This action is claimed to virtually double the cleaning efficiency of the paper.

Because the Electro-PL will function as an efficient air filter even when deenergized, American Air Filter suggests that its operation can be varied to suit conditions. For example, it could operate as an electronic air cleaner during winter months when a smoky atmosphere prevails, and as a dry filter during the summer.

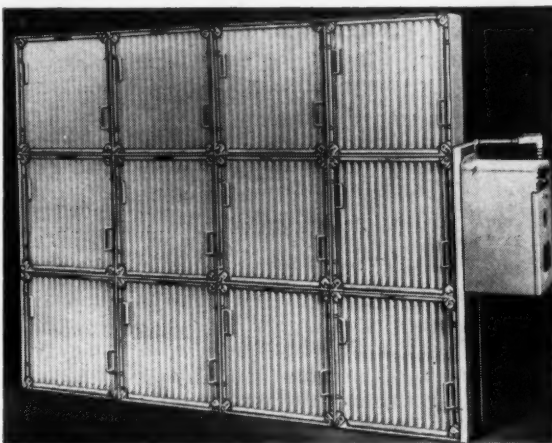
Maintenance is said to be simplified since the low-cost Airmat paper is replaced with new material when it accumulates its full dust load.

Collector Element



The collector element consists of two matching sections which support the Airmat paper.

New air filtering system developed by American Air Filter employs the electronic principle to give an electrostatic charge to Airmat filter paper. Efficiency of this system is claimed to be midway between a mechanical filter and the electric precipitator type. The filter can be arranged in banks as shown at right.



Basically, the Electro-PL consists of two components: a frame and a collector element which fits into the frame. The frames which support the collector elements are riveted together to form a straight bank or V arrangement in permanent assembly. Electrical potential for the collector element is supplied through a center contact at the rear of each frame.

The collector element consists of two matching sections that support the Airmat paper and seal the ends of the serrations. Serrated design of the two sections of the collector element permits the Airmat paper to be folded in deep pleats, which increase the ratio of filtering surface to frontal area.

The pleated paper rests on grids formed of aluminum rods which are supported by three V-shaped insulators. The center rod in each grid is the positive electrode and the structural members that support the insulators are the grounded electrodes.

There are 28 charged electrodes in each collector element which are connected to a bus bar centered horizontally at the rear of the unit. A bronze spring strip at the center of the bus bar contacts a high voltage terminal mounted on the back of each frame.

This terminal, supported by a disc-shaped insulator, is connected through a resistor to the output of the power pack.

Electrical contact is made automatically when the collector element is inserted in the frame and latched securely in place.

The filtering paper is in contact with both the charged and grounded electrodes. With a positive electrical potential applied through the center electrodes, a strong electrostatic field is set up in the paper, which then functions as an electronic air filter, the company explains.

High direct current required to the filter operation is obtained from the standard 115-volt a.c. through a power pack, which are available in three sizes and capacities. Energy consumption of the filter averages about 8 watts per 1,000 c.f.m. of air handled.

Detailed data and specifications of the new filter are given in American Air Filter Co.'s bulletin No. 257.

Insulating Windows Cut Air Conditioning Cost For Office-Warehouse

CHICAGO—Extensive use of insulating windowpane is made in the new \$2,000,000 air conditioned office building-warehouse of the Sprague Warner division of Consolidated Grocers Corp. here.

The building, which has 350,000 sq. ft. of floor space, is largely of one-story construction for the receiving and shipping departments. These include a railroad spur accommodating 20 cars.

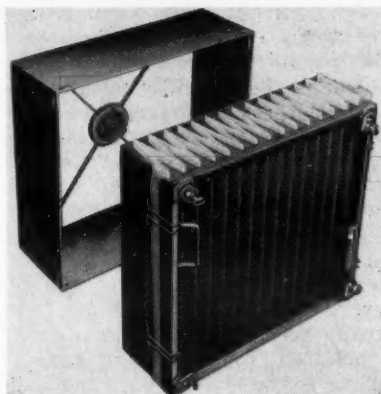
There is also a two-story section which contains the general offices, printing rooms, a model visual front grocery store, and an employees' cafeteria. This section receives natural daylight from four sides and is air conditioned.

Lowered "initial expense of the air conditioning installation . . . and lower operating costs" have been achieved through use of 691 Thermopane window units, indicated A. Epstein & Sons, Chicago engineers responsible for the building.

This insulating window, it is claimed, will also "eliminate the condensation on the inside of sash in rooms such as the printing room where humidity control is important."

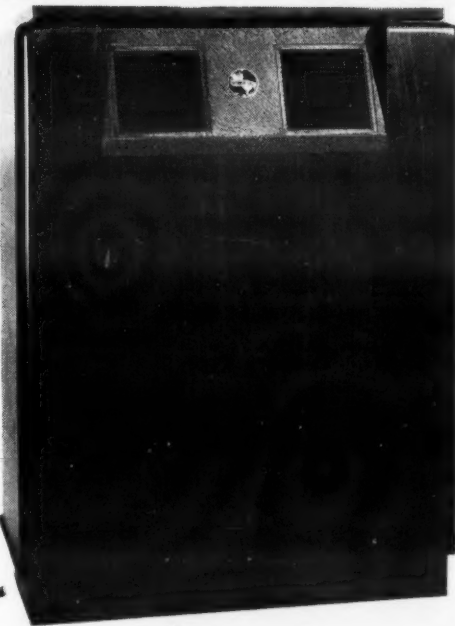
Reduction of outside noises is also claimed for this installation of insulating glass.

In addition to the Sprague Warner division, Consolidated Grocers includes the following divisions: Reid Murdock, C. D. Kenny, Western Grocer, Marshall Canning, and Danemiller Grocery.



Major components of American Air Filter's "Electro-PL" system are the frame (upper left) into which fits the collector element (lower right). Electrical potential for the collector is supplied through the center contact at rear of frame.

• **UNITS That Have The Whole Industry Talking!** •



Write for Dealer Franchise Information

Franchise territories still available. Terms — quantity discounts — free consumer advertising.

SALES! . . .

Look at these Specifications!

- * **COMPACT.** 27" high, 22" wide, 10" deep.
- * **CAPACITY.** 2 Rotary Blowers, 12,000 BTU per hour.
- * **REFRIGERATED.** With Freon.
- * **FILTERS AND DE-HUMIDIFIES.** Fiberglass filters.
- * **ENGINEERED.** To cool 2,500 cu. ft. room under normal conditions.
- * **SMART.** Walnut, blond mahogany or white finishes. Special finishes on quantity orders.
- * **MODERN CONTROLS.** Equipped with Expansion Valve, Solenoid and Thermostat for TRIPLE control.
- * **MOVABILITY.** Compressor-to-unit copper tubing is easy to move. Apartments or hotels can offer CHOICE of air conditioning. Lessees can install and later move unit without losing equity.

Refrigerated AIR CONDITIONING

installed **WITHOUT**

"Wrecking the Place!"

INTERNATIONAL—the most modern air conditioning system on the market—has a lower initial cost and installs for 25% to 40% less! No expensive alterations of walls, ceilings or masonry . . . operates anywhere in the room. These are BIG selling points! As efficient as it is attractive (finished in walnut grain, blond mahogany or white porcelain), INTERNATIONAL cools and dehumidifies from any location in a home, office, hospital, tourist court, hotel. The compressor (extra) can be placed in attic, basement or closet, connects to the unit by an easily installed, inexpensive copper tube. Movable, fully automatic, triple thermostatic control. Increased compressor capacity makes large commercial sales easy. All the advantages of a single unit system without blocking windows, winter removal or compressor noise and heat. All the advantages of a central system without the disadvantages of "wrecking the place" . . . no duct work or tearing out of partitions. Order your stock NOW.

INTERNATIONAL
Air **CONDITIONING**

"America's First Flexible Units!"

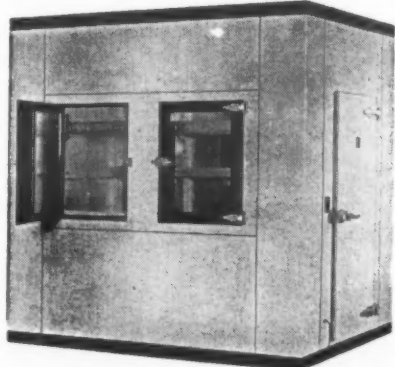
Manufactured by
INTERNATIONAL MFG. CO.

515 West Main St.
Oklahoma City, Okla.

Cable Address
"Intime"

MIRACOOOL . . . the WALK-IN COOLER!

The Walk-In Cooler that far outclasses the rest of the field. MIRACOOOL is first . . . because it lasts. Yes, lasts longer, gives you greater service than any other walk-in cooler. Constructed in sections for quick easy installation, it's made with performance and practicability in mind. MIRACOOOL owes its success to no miracle, just to years of patient research and experience.



DELUXE WALK-IN

Exterior finished in lustrous white with black trim on two sides. Standard equipment: quarter rails, meat hooks, one shelf, floor racks, and chrome plated rail and hooks behind glazed service doors.

Write today for illustrated folder and price list of our complete line of Walk-In Coolers.



The CLEVELAND REFRIGERATOR CO.

2901 EAST 55th STREET CLEVELAND 4 OHIO
Manufacturers of Custom-Built Refrigerators Over A Quarter Century

Refrigerated Selling 'Tools' Aid Tremendous Expansion In Package Ice Cream Consumption

CHICAGO—Modern refrigeration equipment is making possible the sale of packaged ice cream in undreamed of volumes not only through the traditional drugstore and dairy bar but also through new outlets, particularly the supermarket and food store.

So thinks the Paraffined Carton Research Council which recently published its findings on ice cream merchandising in a 48-page book called *Packaged Profits: Ice Cream*.

The Council sees modern refrigeration equipment, such as low temperature display cases, low temperature open-type self-serve cases, movable refrigerated cases, low temperature storage compartments in domestic refrigerators, and home freezers, as giving the retailer new ways to merchandise ice cream and the consumer greater capacity to store packaged ice cream in the home.

The Council's book outlined 11 factors which it said are "spearheading the trend toward greater package ice cream sales."

"First, there is the widespread adoption of packaged ice cream by thousands of the nation's food and



The Ice Cream O'Mat gives customer push-button choice of six flavors.

grocery stores—particularly supermarkets—a trend that is moving rapidly and may within a comparatively short space of time, see the largest percentage of the 350,000 retail food stores selling ice cream—in packaged form.

"Second, the new household refrigerator, with its low temperature

storage compartment, is providing a place for keeping ice cream in the home for the first time—again in packaged form. Until the post-war period, the lack of adequate low temperature storage space had been one of the major obstacles to greater consumption of ice cream in the home.

Freezers Sell Ice Cream

"Third, there are the additional facilities for storing ice cream being provided by thousands of home and farm freezers, making ice cream available for everyday consumption by even the rural and farm group—opening up entirely new avenues of sales for the ice cream industry.

Prior to the advent of such storage units, the average farm household confined its ice cream consumption to the usual town visit on Saturday night or occasionally whipping up some of the home-made variety.

"Fourth, the creation of new equipment for completely automatic packaging of ice cream at the factory. Four such machines have already been announced. They make it possible, for the first time, to eliminate the expensive hand labor that went into forming, folding, filling, and closing the carton of ice cream in the plant—thus making it unnecessary for the manufacturer to get a premium for ice cream packages as against bulk.

"Furthermore, these machines now make it possible for ice cream to go through its whole manufacturing and packaging process without the touch of human hands—a further sanitary feature.

"Fifth, because of the facilities for storing ice cream in the home, more economical purchases of ice cream will be possible by the consumer—either in the larger half-gallon or gallon containers, or in the purchase of six or eight pints at one time—volume sales by the retailer that in the future should mean greater economy of purchase.

Food Outlets Also Handle

"Sixth, the entry of ice cream into many stores of the dry stop variety such as food outlets, which heretofore never handled ice cream.

"The presence of ice cream in thousands of such new outlets—through the medium of the package—will aid the industry in getting its share of the 'impulse' buying which motivates so much of the purchasing today. Surveys have shown that 40% of the buying is done by the housewife on the impulse basis.

"Seventh, because of spiralling costs, the retailer has never been so cost and profit conscious as he is today. He recognizes the costly effort that goes into dipping a pint or quart of ice cream for carry-out at today's high prices for help.

"This was conclusively demonstrated during the war, when with ice cream supplies limited, many dealers refused to dip bulk for carry-



Proper cabinets and display help store operate on near-complete self-service basis.

out because of the low return it gave them.

"The package, which allows no loss in dipping, gives him a clear and concise understanding of his costs and profits and completely eliminates the danger of dipping away the profits by an over generous clerk. . .

"Eighth, the inevitable results of exhaustive research aimed at improving the contents of the package of ice cream filled at the factory—in the knowledge that a quality ice cream will bring ice cream into the home more frequently with the assistance of the new merchandising and storage aids, but that a poor quality product can shut the door forever to home consumption of ice cream.

"Ninth, the improvement in the ice cream package itself due to the availability of better paperboard, the development of better types of wax and superior waxing methods employed by leading carton manufacturers. . .

New Units Stimulate Sales

"Tenth, the recent creation of new merchandising units for stimulating point-of-sale purchases of ice cream such as:

"The mobile cabinet which can be wheeled to any department of a store to direct attention to ice cream or to promote ice cream as a 'spot special' to be sold in conjunction with other products in the store such as baked goods, frozen fruits, etc.

"The new steel constructed Ice Cream Marts, Ice Cream Centers, or Islands—a merchandising unit with a selling superstructure that either fits around the cabinet as an apron or clamps on to the cabinet, to create an entire ice cream department, prominently located in any store, to direct the attention of store traffic to the purchase of packaged ice cream.

"Finally, with the increasing visual display being given to package ice cream in the open display type of cabinets plus the trend toward self-service selling in package ice cream, the improved package designs that have eye appeal will serve to stimulate that impulse to buy."

In support of its view that food stores may become the largest merchandisers of packaged ice cream, the Council pointed out:

"The food store generally is beginning to recognize ice cream as a

fast-moving, profitable item that provides a much higher return on space occupied than any other department in the store.

Food Stores Reap Benefits

"Food stores, accustomed to working on margins of as little as 10%, find glorious profit possibilities in ice cream which, even with a 20% or 25% markup, which is high to them, still enables them to sell ice cream at a lower price than does the traditional type of ice cream outlet whose markup customarily is anywhere from 40% to 75% or even higher.

"In fact the *Ice Cream Trade Journal* survey, among that group of chains which planned to take on the sale of ice cream as soon as materials and equipment were available, none reported a contemplated markup of higher than 25% or lower than 10%."

The survey referred to was reported by the *Trade Journal* in October, 1945 and indicated that 40% of food chains contemplated selling ice cream and that 17% were already selling it.

A pre-war survey by the International Association of Ice Cream Manufacturers (September, 1940) showed that only 11.4% of the industry's volume was sold through grocery stores.

Malcolm McCabe, secretary of the Massachusetts Retail Grocers Association, is quoted as telling that organization:

"Work hard to build up an ice cream business. A & P experiments with ice cream sales show amazing potential profits. Five big chains show a gross profit return per store per month on coffee of \$28, bread \$64, potatoes \$75, fruits \$128, fresh fruits \$172, all groceries \$220, vegetables \$270.

"At a retail price of 25 cents a pint and 70 cents per quart, A & P will make a 25% gross. On the basis of three months' sales, A & P will average a gross profit of \$573 per month on ice cream alone.

Big Profit Item for A & P

"These figures show that A & P will make more than twice as much profit from the sale of ice cream as the average chain market does from the total sale of all grocery items."

The Council also cited specific examples of what some food chains have done in the way of selling ice cream.

First National stores in the Connecticut region sold 3,600,000 pint packages of ice cream in one year (1946). The same chain, the same year, in its 19 New York stores sold 1,700 gallons of ice cream in packages per store.

"In Milwaukee, A & P sells its own brand of ice cream in packages, made at its first pilot plant located at Great Bend, Wis. Introduced in the fall and winter 1946-47, sales per store, with the outside temperature down below the freezing point, were phenomenal.

"One chain on the West Coast, in one year, sold an average of 15,000 gallons of ice cream per store, in packages, in its 30 outlets.

"Another chain, with 35 outlets, averaged 3,100 gallons per year per store.

"Another with 125 stores, averaged 2,500 gallons per store per year."

(Concluded on next page)

KRAMER
PANEL UNITS
SOLVE SPACE PROBLEMS
Send for Catalog R-125

KRAMER TRENTON CO. Trenton 5, N. J.

FOGEL
PHILADELPHIA, PA.

The FOGEL Improved "Armor-Clad" Walk-in Cooler

"RUGGED"

Solid, sturdy construction makes this rugged FOGEL "Armor-Clad" Walk-In Cooler the best in its class. This famous FOGEL-Improved cooler has many noteworthy advantages, such as:

- ★ Portable and sectional . . . easily enlarged to fit your customers' growing needs.
- ★ Easily erected by two men.
- ★ Beautiful aluminum exterior, rust-proofed steel interior.
- ★ The combined knowledge and efforts of master craftsmen and top-flight engineers, have gone into the exclusive design, construction, and operation of this cooler to give YOU a sure sale profit maker.

You can depend on the FOGEL-Improved "Armor-Clad" Walk-In Cooler for lasting customer satisfaction. Feel welcome to write for further information concerning these, or other, FOGEL Quality-Engineered refrigeration items.

Now Available for Immediate Delivery
One franchise gives you a complete commercial refrigeration line.

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.
Quality manufacturers, for almost one-half century, of Display Cases, Reach-Ins, Walk-Ins, and Freezers.



Here is GENERAL'S perfected model CSC7 . . . a self-contained dry beverage cooler. Long life, lustrous stainless steel doors and tracks set off the handsome, black crackle finish durably baked on a sturdy, steel frame. Two blowers, each operating double fans, force air against heavy duty multi-finned coils. Model CSC7 is available for immediate delivery at a moderate price.



GENERAL REFRIGERATORS CORPORATION
678 BROADWAY, NEW YORK 12, N. Y. • GRAMERCY 3-1222



Open Case Encourages 'Impulse' Buying



Cases such as this one, offering a special, increase "impulse" buying.

Switch from 'Package' to 'Bulk' Sales Has Cut Costs for Ice Cream Retailers

(Concluded from preceding page)

The Council noted that in some markets like Los Angeles, Houston, Oakland, and San Francisco, the dry stop (food store) is selling a greater proportion of ice cream than ever before and is rapidly taking a leading part in the merchandising of ice cream.

Indicative of the growing importance of the dry stop is the instance of the Dean Milk Co. of Chicago, which since it began making and selling ice cream in 1947 has sold exclusively to food stores having their own cabinets.

It offers the stores an ice cream with 14% butterfat that will sell at 27 cents per pint and, with insulated bag included, will give the retailer a 23% profit on cost price.

Within its first year, the Council said, the Dean Co. had taken on over 700 outlets and was running an annual volume well into seven figures at a time when ice cream sales were slipping in Chicago and nationally.

A commentary on the increasing role of the food store in the sale of ice cream is supplied by the May, 1947 Chicago Tribune ice cream telephone survey among consumers.

This study found that 31.4% of ice cream purchases were made in drugstores, 27.7% in grocery stores, 12.5% in delicatessens, and 1.8% in dairy stores. Thus 42% of all ice cream purchases were made in one type of food store or another.

Mobile Case Can Be 'Spotted'

Food store owners, according to the Council, will find one of their best ice cream merchandising tools in the movable refrigerated cabinet. This cabinet, it said, is strictly a merchandising item, for wherever its success has been tested, a reserve storage cabinet was needed to replenish it.

One such test was cited by the Council.

"The mobile cabinet was installed in a store of the Grand Union chain in New York City by Consolidated Dairy Products Co. for the sale of packaged ice cream.

"In November, 1947, a total of 179 gallons of ice cream in pint packages was sold from the store. In the previous November (1946) the same store, without the mobile unit, sold 85 gallons.

"Again in December, 1947 a total of 158 gallons of ice cream in packaged form was sold from the same store. This compared with a total of 80 gallons sold by the identical store in December, 1946.

Volume Rose over 100%

"In other words, increases of better than 100% in sales volume in one month and almost 100% in the second month were recorded.

"The increases, however, are greater when it is realized that during these same two months there was a national decline in ice cream sales (20 and 20.6% respectively)."

Another good tool mentioned by the Council is the "10 Galloneer" made by Schaefer, Inc. of Minneapolis. This is a two-hole cabinet, 30½ in. long, 23 in. wide, and 37¾ in. high with a capacity of 54 quarts or 124 pints of packaged ice cream. It is specifically designed to hold a greater capacity of packages than other units of the same size, according to the Council.

A third is the ice cream mart, center, or bar. According to the Council, "the object of this piece of merchandising equipment is to promote the sale of both bulk and packaged ice cream at dry stops—creating ice cream departments without the heavy investment in a fountain and enabling the dealer to sell ice cream in packaged form or as a sundae, cone, etc.—any item that does not require carbonation.

"The first of these units was announced publicly last summer (1947) as the Sealtest Ice Cream Mart and offered to Sealtest dealers of National Dairy Products Corp.

"The Sealtest Mart serves as an apron fitting around the ice cream cabinet with side pillars for flavor boards and Jiffy bag holder. It has an overhead lighted structure and generally stresses the ice cream

message to the consumer entering the store. The unit is equipped with running water dipper well and syrup jar attachment."

Push-Button Dispensing

A fourth is the Ice Cream O'Mat, an automatic ice cream package dispensing cabinet recently introduced. With this unit, according to the Council, the shopper scans a row of six ice cream flavors, presses a button, and out drops a package.

Each item has its individual delivery button which, when pressed, delivers a package without the purchaser opening or tilting a door. The unit is available with or without a coin-operating mechanism.

All this equipment available to lure food markets into the ice cream business does not leave the drugstore out in the cold, the Council noted.

"In fact," it said, "it has been conclusively established that ice cream package sales, where properly directed and exploited, can provide a satisfactory sales volume and be a profitable source of income for the drugstores.

"Most success in package sales at drugstores has been obtained where a separate cabinet was set up in the store, aside from the fountain, where packaged ice cream could be emphasized for carry-out and where it would attract attention from store traffic.

"This is the most satisfactory method from every standpoint—both for the dealer and for the ice cream manufacturer, who is naturally just as interested in sales volume as the retail outlet.

"An excellent example of how drugstores can profitably sell ice cream is described by W. C. Shoe-

maker, sales promotion manager, Read's Drugstores, Baltimore.

"In my opinion," Shoemaker declared, "you just cannot repack ice cream to suit the consumer and show any profit. More often than not, a clerk packs a pint and a half (by weight) in a pint package; then too, if you have sales of any consequence, it takes your dispensers away from the counter service, retarding customer turnover.

Repacking Is Unprofitable

"It is definitely unprofitable for a fountain to repack bulk ice cream and we have discontinued the practice almost entirely at our stores."

Shoemaker related how in September, 1946, he found that packaged ice cream sales were far below expectations because store managers were not pushing it.

So he visited the stores and pointed out where one store manager was paying his entire rent through the sale of this one little item which, he said, "required only a few dollars in inventory, no extra help, and an assured and acceptable gross profit.

"The success of package ice cream cabinet sales will depend largely on its location in regard to the movement of the store traffic where it will have the fullest opportunity to create 'impulse sales,'" Shoemaker asserted.

"When you install a package ice cream cabinet, do not discontinue the sale of package ice cream at your fountain, regardless of your open display cabinet, because many of your old regular customers will continue to go there for their ice cream and may resent being told by the fountain attendant to serve themselves from the cabinet."

Firm Expands Service Dept.

ATLANTA—Harry Mislow, president of the Refrigeration Exchange, Inc., 237 Pryor St., S.W., handling equipment for restaurants, and meat markets, announces an expansion of its service department to take care of installation and maintenance needs.

"Included in our service department expansion program has been the addition of a truck fleet," Mislow said. "Six trucks now offer fast service to all points in the state."

Electrimatic

Valves, Driers, Strainers,
Charging Lines, Quick Couplers,
Forged Flare Nuts and Fittings

Ask Your Wholesaler

Electrimatic

2100 Indiana Ave. • Chicago 16, Illinois
Canada - 2025 Addington Ave., Montreal



For COMPETENT PHOTOGRAPHIC SERVICE in the U.S.

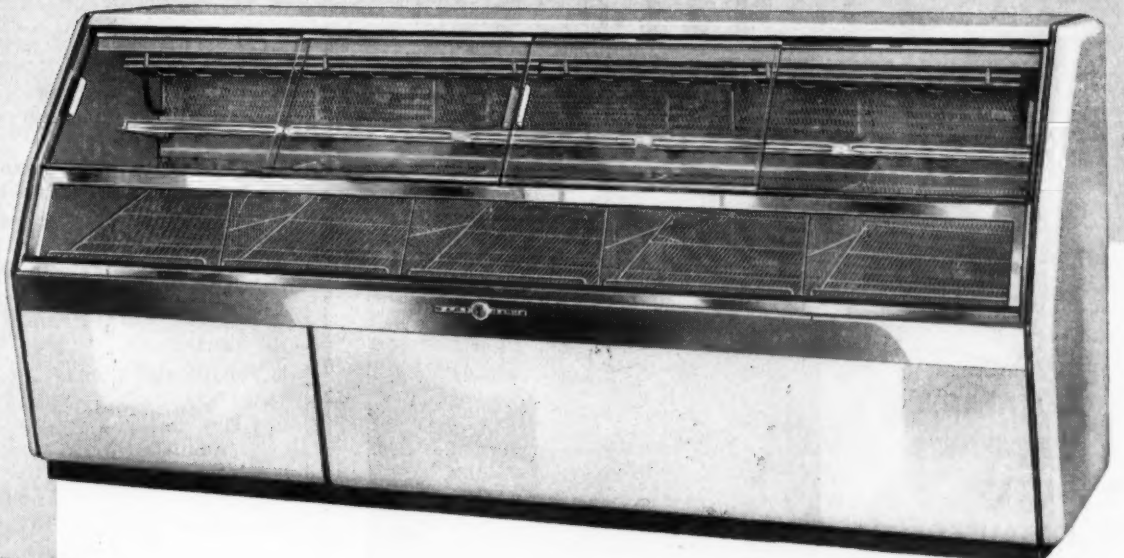
and Canada, deal with professional photographic studios which display this emblem.

Get new 1948 Classified Directory free. Lists competent photographers geographically and by name, with key to special services. A big help when you need photographs from out-of-town. A request on your letterhead will bring this useful booklet.

Write to Charles Abel, Executive Manager, THE PHOTOGRAPHERS ASSN OF AMERICA, 520 Caxton Building, Cleveland 15, Ohio

NOW HERE IT IS!

The Case with an Idea!



Yessir! Here is a self-service case with an idea built in... with merchandising an integral part of its construction. Designed to help you make more sales.

Be sure you know about the merchandising idea in the new Super-Serv. It can make you extra profits... increase your volume. Fill out the coupon and MAIL TODAY.

THE SUPER-COLD CORPORATION

1020 E. 59th St. Los Angeles 54, Calif.

Portland • Chicago • New York • Newark
New Haven • Dallas • Houston
Oklahoma City

and
DISTRIBUTORS IN PRINCIPAL CITIES

Gentlemen:
Please furnish me with details on your new "Case-with-an-Idea" and complete information on a Super-Cold franchise.

Firm _____
Address _____
City and State _____
Name _____

AN INVITATION

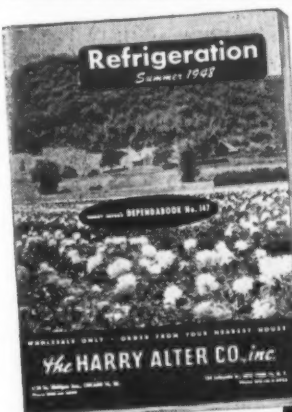
Now, more than ever, Super-Cold is the line for greater sales. For over a quarter century, it has been the complete food store line fully manufactured and marketed under one great name. During the past few years, it has not been possible to expand our family of distributors, but our recently completed Post-War Modernization program, which greatly increases our production, now makes it possible for us to expand our distributor organization. If you would like information about a Super-Cold PREFERRED franchise, use the coupon or write on your letterhead.

SUPER-COLD

Refrigeration

GUARDIAN OF
Flavor
Appearance
Purity

COMPLETE FOOD STORE REFRIGERATION UNDER ONE GREAT NAME



WHOLESALE
ONLY

A COPY FOR YOU!



Summer Edition of the
DEPENDABOOK No. 147
Refrigeration Parts Catalog

Please write early (on your own letterhead) for your copy of this newest edition of the most complete catalog in the business.

THE HARRY ALTER CO.

1728 S. MICHIGAN AVE.
CHICAGO 16, ILL.
134 LaFayette St., New York 13, N. Y.

NOTE: Inquiries from out of U.S.A. should be addressed to: International Division, or use Cable Address, "Supercold."

The KEY to AIR CONDITIONING

One of a series from

by James J. LaSalvia

Amount of Air Through Cooling Coils

The amount of air which must pass through the cooling coils will affect the size of the coils and compressor.

It is therefore very important to arrive at the proper selection of coils and compressor to meet the solution for each problem.

There are just two methods of meeting this solution:

1. To pass all of the air through the cooling coils. (See Fig. 1.)

2. To pass a portion of the air through the cooling coils and to pass the remainder around the cooling coils, and both to join beyond the cooling coils. (See Figs. 2 and 3.) This is known as the by-pass method.

Advantages of passing all air through the coils:

a. Will operate at higher cooling coil temperature than the by-pass method.

b. Compressor will operate at higher suction temperature than in by-pass method, therefore greater capacity.

c. Usually results in low first cost of system.

Disadvantage of passing all air through the coils:

May not lower the inside relative humidity sufficiently for good comfort during rainy and muggy outside weather conditions. This will occur about 10% of the time in the cooling season.

For general comfort cooling systems where first cost is a consideration it will be satisfactory. But on systems where the relative humidity must be kept at a specified range, no matter what the outside conditions may be, it is not satisfactory.

The air conditioning engineer by his knowledge of this work will be able to make this decision.

Advantage of the by-pass system:

With proper controls the dry-bulb temperature and the relative humidity in the space can be maintained in the comfort zone at all times during the cooling season more closely than the other method.

Disadvantages of the by-pass method:

a. Will operate at lower cooling coil temperature than the other method.

b. Compressor will operate at lower suction temperature than other method. (This means lower output and may require larger compressor.)

c. Usually results in a higher first cost than other method.

d. Will not operate efficiently with direct expansion coils because of the velocity limitation of the air through the cooling coils in order to prevent icing on the cooling coils.

PASSING ALL AIR THROUGH COOLING COILS

This method will apply most efficiently in conjunction with direct expansion coils for the following reasons:

1. Air velocity through the coils will be constant, and there is no danger of icing the coils, if proper coil temperature and proper air velocities are selected.

2. During mild outside weather conditions, especially during rainy and muggy days, the total refrigeration load will drop off, and the cooling coil will lower in temperature. This will result in more latent extraction, which is required under such conditions, than at high outside conditions.

The use of water-cooling coils with this method is also satisfactory, but if possible colder water should be used on rainy and muggy days than is required for high outside conditions.

This method is not proper for air washer systems. For the latter dewpoint control and the by-pass system are recommended.

Each problem must be checked to determine whether to use all air through the coils or the by-pass method.

This checking is based on the quality of air which must leave the coils. Use the following formula:

For sensible heat:

$$(a) \quad T_r - \frac{(I_s + F_s)}{1.08 \times \text{c.f.m.}} = \text{d.b. temperature of air which must leave cooling coils.}$$

$$(b) \quad T_r - \frac{(I_s + F_s) \times .925}{\text{c.f.m.}} = \text{d.b. temperature.}$$

Where:

T_r = Inside d.b. temperature of space as used in design.

I_s = B.t.u./hour, internal sensible heat (D) in heat gain.

F_s = B.t.u./hour, fan and duct sensible heat (E) in the heat gain.

$I_s + F_s$ = B.t.u./hour is (F) in the heat gain.

1.08 = See section on Air Requirements.

C.f.m. = Total c.f.m. as figured in the heat gain.

For Latent Heat:

$$(b) \quad \frac{\text{Grs./lb.} \times I_l \times 7,000}{1,080 \times \text{c.f.m.} \times 60} = 13.55$$

Grains per pound which the air must have leaving coils.

$$\frac{\text{Grs./lb.} \times I_l \times 7,000 \times 13.55}{1,080 \times \text{c.f.m.} \times 60} = \text{Grains per pound.}$$

$$\frac{\text{Grs./lb.} \times I_l \times 1.44}{\text{c.f.m.}} = \text{Grs./lb.}$$

Where:

Grs./lb. (room) = Grains per pound which is in the room air at design conditions.

I_l = B.t.u./hour, internal latent heat (I) in heat gain.

7,000 = Number of grains in one pound of water.

1,080 = B.t.u. in one pound of water.

C.f.m. = Total air as figured in heat gain.

By-Pass Compared with 'Straight-Through' Design

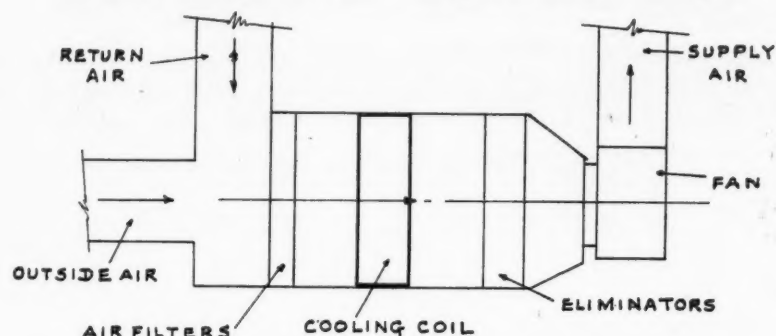


Fig. 1—This arrangement passes all the air through the cooling coil.

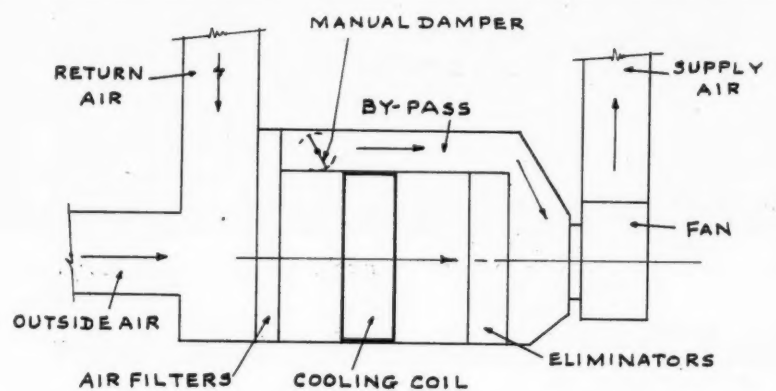


Fig. 2—A by-pass with a manual damper permits varying amounts of air to be passed around the cooling coil.

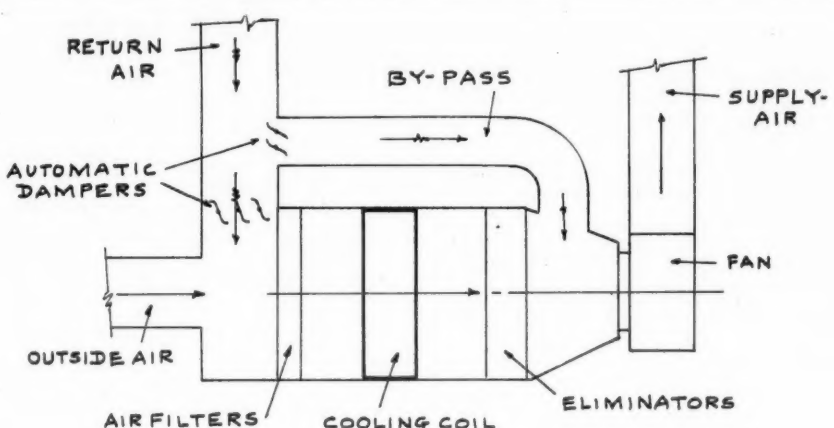


Fig. 3—This by-pass system is fitted with automatic dampers.

60 = Minutes in one hour.
13.35 = No. of cu. ft. (volume) for 1 lb. of air at 70° F.

By using the above formulas, we can determine whether all of the air shall pass through the coils, or to use the by-pass system.

Let us check the heat gain as figured in the preceding chart on cooling calculations.

Using formula (a):

$$80^\circ \text{ d.b.} - \frac{(F) 188,504 \text{ B.t.u./hour} \times .925}{8,600 \text{ c.f.m.}} = 59.8^\circ \text{ d.b.}$$

Using formula (b):

$$77.3 \text{ grs./lb.} - \frac{(I) 33,840 \text{ B.t.u./hour} \times 1.44}{8,600 \text{ c.f.m.}} = 71.6 \text{ grs./lb.}$$

By referring 71.6 grs./lb. to the psychrometric chart, we find the dewpoint to be 57.9° F.

By referring the 59.8° d.b. and 57.9° d.p. temperatures to the psychrometric chart, we find the wet bulb temperature to be 58.8° F.

Therefore, the quality of air which must leave the cooling coils in this case is:

D.B. temperature 59.8° F.
W.B. temperature 58.8° F.
D.P. temperature 57.9° F.
Relative humidity 92.0%

The difference between d.b. and the d.p. temperatures is 59.8° — 57.9° or 1.9° F.

Remember that the dewpoint must figure lower than the dry bulb tem-

perature; if it does not, increase the amount of air until it does so.

The difference between d.b. and the d.p. temperatures must be between 1½° to 4° F. The reason for having not less than 1½° difference is that the air leaving any cooling coil will not come out of the coil saturated.

This 1½° difference means about 90% to 95% saturated and at 4° difference about 85% to 90% saturated. The air leaving the coils will be in general between 85% and 95% saturated.

As long as the difference between the leaving d.b. and d.p. temperatures is at 4° or less, the system can be designed so that all of the air can be passed through the cooling coils.

If on the other hand, the difference should be greater than 4°, the by-pass method should be used.

The greater the difference, the more pronounced becomes the use of the by-pass method. It should be noted that the by-pass system can be used on any system regardless of the difference, if one cares to use it.

The above statements of 1½° to 4° difference hold true on coils having four (4) rows or more.

For a three-row coil at least a 6° difference is required.

Do not consider the use of less than four rows in a coil, unless you are absolutely sure it is all right. Generally not less than a four-row coil is used in comfort cooling systems.

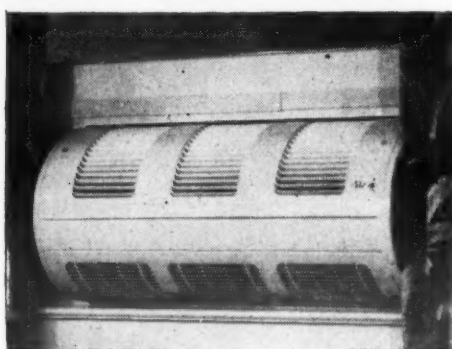
(To Be Continued)

INCREASE \$SALES AND PROFITS

STANDARD AIR CONDITIONING, INC.

AIR PILOT'S ELECTRIC WINDOW VENTILATOR

- ★ VENTILATES
- ★ CIRCULATES
- ★ FILTERS
- ★ EXHAUSTS
- ★ SILENCES
- ★ PURIFIES*



***99%-100% BACTERIA KILL**
THROUGH 80 WATTS GERMICIDAL LAMPS

Used in: HOMES, OFFICES, SCHOOLS, HOTELS, etc.

YOUR GAINS } RIGHT PRICE
(At No Extra } LONG DISCOUNT
Cost to You) } \$

SIMPLE INSTALLATION

SERVICE FREE

DISTRIBUTOR TERRITORIES OPEN

WRITE FOR DETAILS

STANDARD AIR CONDITIONING, INC.
Lincoln Park, New Jersey

Gentlemen:

We are interested in your Air Pilot as

☐ Dealer ☐ Distributors

Please mail us (no obligation) Literature

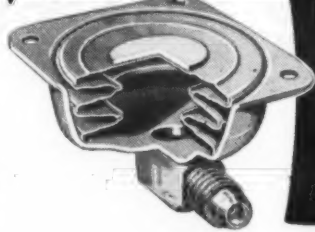
Name Title

Company

Street

City Zone State

Positive Action



THE
BERYLLIUM
COPPER
Power Element
Used in all
Ranco Controls

It takes positive action to permit the temperature accuracy possible with the Ranco beryllium copper power element. And it takes sound engineering and skilled craftsmanship to produce a unit which will provide the satisfactory service that pleases your customers and makes more profit for you. That's one reason it pays to check with Ranco first.

Ranco Inc.
COLUMBUS 1, OHIO



World's Largest Manufacturers of REFRIGERATION CONTROLS

CHECK with
Ranco FIRST

- ★ Specialists in Refrigeration
- ★ Dependability
- ★ Greater Customer Satisfaction
- ★ More Ranco Controls in Use
- ★ Less Stock To Carry
- ★ More Profit For You

Omaha Self-Serve Meat Department Accounts For 40% of Supermarket's Total Volume

OMAHA, Neb.—A meat business grossing over \$5,000 per week has been built up since last fall by Crestwood Shops No. 2 here as a result of pre-packaging and self-service operations utilizing new reach-in refrigerated cases.

Moreover, the meat business is accounting for about 40% of the store total as compared with an average one third for supermarkets, according to Joe Shaver, store manager. The self-service meat business is handled by two meat cutters, a girl who works full time at wrapping, and a part-time helper who works Fridays and Saturdays, he added.

The Omaha store has 43 ft. of reach-in cases for pre-packaged meats, in addition to 24 ft. for frozen foods and 22 ft. for refrigerated vegetables. There are also two 10-ft. by 13-ft. walk-in coolers, one for vegetables and the other for meats. Blowers are used for circulating the conditioned air, thus assuring more uniformity of refrigeration and eliminating the need for defrosting.

MAKES SHOPPING EASIER

A similar setup is maintained at Crestwood Shops No. 1. It was due to the success of the refrigeration equipment at this supermarket that the No. 2 store was erected.

Major asset of the pre-packaged meats system, Shaver pointed out, is that it adds to the convenience of shopping for the customer, in addition to making it easier to serve her.

The reach-in cases are set up for business on Monday after being sold down rather closely on Saturday. Cheese is packaged for the week on Wednesday, while Thursday is packaging day for lunch meats. Wrapping of red meats starts Friday morning for the week-end business.

This system meets consumers demands very closely and provides steady employment for meat department personnel throughout the week, with no peaks when the help is over-rushed or valleys when they stand around and do nothing, the store manager stated.

BUTCHER HANDLES SPECIAL ORDERS

Cellophane is used for packaging and heat seal is used only on hamburgers. No backing is used on meats.

Pre-packaging is done in the open behind the rear series of refrigerated cases in the L-shaped arrangement. Walk-in coolers are adjacent to the work benches where packaging is done, thus eliminating waste motion.

When a customer wants a special cut of meat, such as an extra thick steak or a roast size not included in the packaged display, a meat cutter is always available to provide this service. The manager finds this arrangement to be a prerequisite of a 100%-satisfactory pre-packaged meat service.

The customer can buy such pre-packaged items as brains, ox tails, and liver at Crestwood.

Various sizes of packages are used. Pork chops, for example, are pre-packaged with two, three, and five

chops. Wieners and "franks" are put four, five, and six to the package; bologna in whole rings and halves; steaks and roasts in one and a half to six-pound packages.

More of the smaller packages are put up for the forepart of the week, of course, while larger packages are provided at the end of the week for shoppers buying for Sunday dinners.

DEMAND FOR CUT UP CHICKEN

An exceptionally big demand has developed at Crestwood for cut up chickens, Shaver declared. Approximately 10 dozen chickens are pre-packaged each week, including fryers and older hens for baking and stewing.

The cut up pieces are placed in a large, heavy paper tray and wrapped in cellophane with the seal at the bottom of the tray. One day per week is devoted almost exclusively to pre-packaging chickens.

Crestwood labels at both stores are printed with the slogan: "Help Yourself to the Best—Crestwood Shops—Fine Quality Meats." Marked on each label is the cut and kind of meat, including whether fryer, etc., in the case of chickens, and the weight and price.

Ground horse meat for dog food also is carried in the market but not on open display. Instead, it is stored in one of the closed compartments underneath a reach-in case. A sign has proved to be effective in selling this commodity. Attached to the compartment door, it reads: "Open This Door—For (brand name) Dog Food."

During the months the new store has been operating, there has been a larger increase in the meat business than in any other department, according to Shaver. He attributed this to self-service and the modern display equipment.

The heavy meat volume has been effected despite the fact that Shaver does not attempt to meet low prices of competitors. Emphasis is on quality.

A growing reputation for quality meats no doubt has helped business at the store, since it is located in a part of the city where medium and higher income group families reside, but the manager believes that pre-packaged meats would "go over" just as well or maybe better in a lower-income residential section if competitive prices were featured.

BROADCAST FROM STORE

Crestwood recently completed a six-month, 15-minute-per-day broadcast originating at the store, and patrons were asked what they liked about the new supermarket. The self-service meat department came in for a large amount of favorable comment, covering the following points:

1. With the price marked right on the package, I can stay within my budget easier than in an "old fashioned" butcher shop.
2. If I want to buy 15 cents worth of luncheon meat, I can do so without the embarrassment of going to the meat counter and asking the butcher for it. Also, I save money because I probably would buy something besides the luncheon meat to save embarrassment.
3. I hate to stand in meat lines, so self-service answers my problem. In most stores you have to stand in line for red meat, then do it all over again for luncheon meat or cheese.
4. I like the speed of self-service meats. On Saturdays I can shop in three-fourths less time just because of pre-packaged meats at Crestwood.
5. I prefer to serve myself in food shopping and this applies to meats as well as other items. Clerks probably mean to be helpful when they

suggest items to you, but I like to shop for myself.

6. I get what I want in meats with less trouble the self-service way, thanks to Crestwood's large selection. Also, I can see what I am getting better in the cellophane packages than I used to the closed meat cases.

7. Crestwood solves my meat shopping problems just fine, because if I don't happen to find the cut I want in self-service, all I have to do is ask the meat cutter for it, and I get much faster service than I would in the ordinary market.

Incidentally, none of the interviewees had an unkind word for self-service meats.

Shaver said there is not much difference in cost between the self-service and the old way of retailing meats. The larger investment in refrigerated display cases and other extra equipment needed for self-service, and the cost of pre-packaging, is offset by a reduction in personnel and the more efficient work routine which spreads the work out evenly through the week.

HAS CONSUMER APPROVAL

If he sold as much meat over the counter as he does with self-service cases, he would have to carry two additional meat cutters, he pointed out. He might possibly get by by hiring extra men at the end of the week, he added, but it is impossible now to employ good meat cutters on a part-time basis, so that alternative is "out."

The "clincher" for self-service meats, in Crestwood's experience, is the fact that it meets with consumer approval and, consequently, has resulted in increased sales. Furthermore, the unusually large gain in

This Is Only Half of It



This picture of the self-serve meat department in the Crestwood Shops No. 2 shows only one half of the supermarket's pre-packaged meat section. Meat sales in this Omaha, Neb. store account for 40% of the total volume.

meat sales has been secured price competition, whereas management of the dry groceries departments has been made more arduous because these departments are operated on a more competitive basis.

Crestwood Shops also have found it profitable to merchandise vegetables through use of refrigerated reach-in cases, and to pre-package a large amount of vegetables, including about all of the head lettuce. Spinach, soup bunches, and cauliflower are wrapped in cellophane to some extent.

Customers like packaged vegetables because they know the produce is clean and hasn't been handled by someone else, the store manager said. The price is marked on the cellophane, and the system saves time

at the checkout counter, as well as cutting down waste. Wrapping avoids losing leaves from such vegetables as lettuce and spinach.

A growing trend to packaged tomatoes also was noted at the store, with the pre-packaging done by the distributor or grower. This avoids considerable spoilage, too, and patrons like the idea of getting tomatoes that haven't been pinched by a number of other shoppers.

When Crestwood took over an old store near the site of the present No. 2 supermarket, sales were boosted from \$1,250 a week to \$6,700 a week through use of reach-in refrigerated cases and other modern equipment. In the new store, sales have been running around \$13,000 to \$14,000 per week.



every feature you want in refrigeration tube—you get in

REVERE DRYSEAL!

THE IMPORTANT THING TO KNOW ABOUT REFRIGERATION TUBE IS IT'S REVERE!

●Revere Dryseal Copper Refrigeration Tube is dead soft, so that you can bend it easily . . . and it won't split at the ends when flared. It has a new type of mechanical end seal that permanently keeps the interior of the tube clean and dry; and the seal is compact enough to pass through any opening large enough for the tube itself. In addition, Revere Dryseal is made to new, more economical dimensional standards. And it comes to you in a new package that protects the tube, keeps it bright and clean, and is readily identifiable in stock.

Revere Dryseal Tube comes in sizes from 1/8" to 3/4" O.D., and is packed two 50-foot coils to a package. Next time you buy refrigeration tube, ask your Revere Distributor for Revere Dryseal—the easy-to-

bend copper refrigeration tube that assures you of fine quality in every length you buy.

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.

FOR SALE

Two walk-in insulated Refrigerator units, 7'-0" long by 5'-3 1/2" wide and 5'-10" high. Mfg. by Gloekler Mfg. Co., Erie, Penna. Complete for use with ice.

Write to

DOVER FILM CORPORATION
DOVER, N. H.

Unusual Opportunity for SALES REPRESENTATIVES

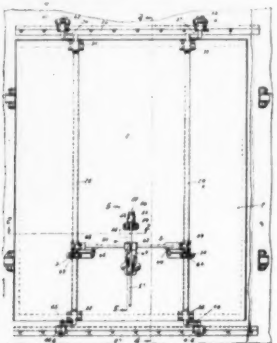
New York, New Jersey, and Pennsylvania territory open for factory representative of nationally known top quality manufacturer of complete line of commercial refrigeration. Career opportunity. Salary, expenses and commission on sales. Write giving age, experience and qualifications in full.

Box 2907, Air Conditioning & Refrigeration News

PATENTS

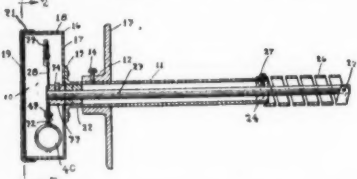
Weeks of May 25, June 1

2,442,031. REFRIGERATOR CAR DOOR. Wilfred A. Beauchamp, Chicago, Ill., assignor to The Youngstown Steel Door Co., Cleveland, Ohio, a corporation of Ohio. Application April 27, 1946, Serial No. 665,463. 23 Claims. (Cl. 20-23.)



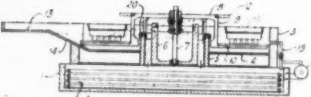
1. In a sliding door for railway cars having a wall provided with a door opening, means embodying vertically disposed bars rotatably mounted on said door for supporting said door for longitudinal movement into and out of said door opening, levers mounted on said bars, said levers being swingable horizontally to impart rotation to said bars, and a vertically swingable lever mounted on said door, said lever being engageable with said horizontally swingable levers to impart swinging movement thereto.

2,442,072. THERMOSTAT OPERATED RHEOSTAT. Arthur D. Cole, Minneapolis, Minn. Application June 23, 1945, Serial No. 601,205. 5 Claims. (Cl. 201-55.)



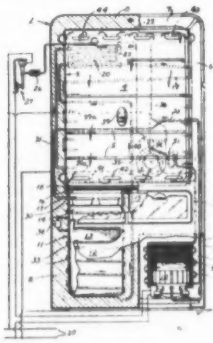
1. A motor control comprising a revolvable support pivoted for swinging movement about a horizontal axis, a mercury switch carried by said support and normally disposed below said axis, a resistor carried by the support and disposed above said axis in counterbalancing relation with respect to said switch and a conductor connecting said resistor and said switch, said switch, resistor, and conductor being fixed relative to one another and being jointly movable with said support.

2,442,146. BRINE TANK. James H. Beagin, Pittsburgh, Pa. Application Sept. 15, 1945, Serial No. 616,608. 3 Claims. (Cl. 62-104.)



2. Apparatus for making frozen food or confections which comprises a brine tank, a working tank mounted above said brine tank and having circulating means for withdrawing brine from the brine tank and delivering it to the working tank, a rotary table mounted on said working tank having a floor above the floor of the working tank for supporting freezing molds thereon, means for rotating said table, and means for maintaining a desired liquid level in said working tank, which latter means comprises an annular over-flow wall having a weir mounted thereon to be adjustable for maintaining a desired brine level in said working tank.

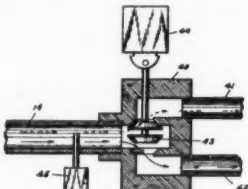
2,442,188. CONTROLLED HUMIDITY REFRIGERATOR. John J. Bauman, Abington, Pa., assignor, by mesne assign-



ments, to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application Nov. 28, 1944, Serial No. 565,435. 18 Claims. (Cl. 62-102.)

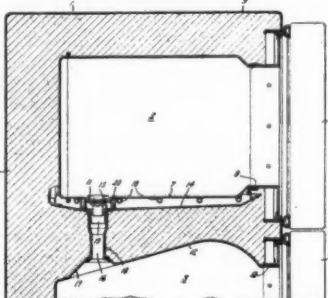
1. In a refrigerator having a high humidity storage compartment, a cyclically-operable refrigerant circulating system having a portion located exteriorly of said compartment out of contact with the moisture-laden air of said compartment during normal operation of the refrigerator and whose temperature varies during a cycle from a value substantially below the freezing point of water to a value in excess of freezing, and means for passing air from said compartment in heat exchange relation with said portion to condense moisture from the air.

2,442,201. HEATING AND COOLING SYSTEM. Robert S. Elbert, Jr., Waynesboro, Pa. Application March 4, 1942, Serial No. 433,375. 1 Claim. (Cl. 257-3.)



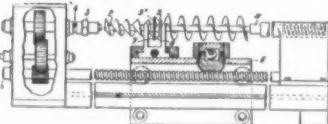
A heating and cooling system having means for maintaining a comfortable temperature condition in a room, comprising a heat exchange member having heating and cooling parts, a radiant panel, means for circulating a heat transfer fluid continuously between the panel and the heat exchange member, thermostatic means for maintaining a substantially constant temperature in the return line of the circulating medium, and a three way valve controlled by the thermostatic means for directing the circulating medium through heating or cooling parts of the heat exchange unit depending upon the temperature of the circulating medium in said return line.

2,442,204. MOISTURE CONTROL MEANS FOR TWO-TEMPERATURE REFRIGERATOR CABINETS. Alfred G. Janos, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Dec. 18, 1946, Serial No. 716,957. 5 Claims. (Cl. 62-103.)



5. A cabinet for refrigerators and the like comprising a freezing compartment, a cooling compartment, means providing a low temperature zone adjacent said freezing compartment, means providing communication between said cooling compartment and said freezing compartment and said low temperature zone, means within said freezing compartment for preventing the free circulation of air between said freezing compartment and said cooling compartment, means adjacent said low temperature zone for preventing the free circulation of air between said low temperature zone and said cooling compartment, both of said means for preventing free circulation of air being adapted to afford free flow of water to said cooling compartment through said communicating means whereby water resulting from the defrosting of said freezing compartment may be discharged from said freezing compartment and from said low temperature zone.

2,442,446. METHOD AND APPARATUS FOR MAKING PINNED TUBING. Robert M. Wallace, Massillon, Ohio, assignor to The Griscom-Russell Co., New York, N. Y., a corporation of Delaware. Application May 30, 1944, Serial No. 538,053. 3 Claims. (Cl. 29-157.3.)



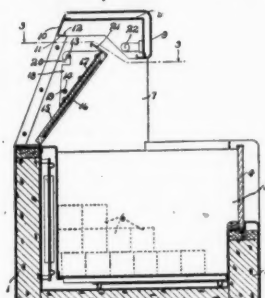
1. The method of applying a heat radiating fin to a tube which comprises coiling a strip of metal into a flat closely coiled helix having an internal diameter greater than the outside diameter of the tube, extending the tube into the coil, attaching one turn of the coil adjacent one end thereof to the wall of the tube, inserting between two adjacent turns of said coil a spacing roller having a straight

element disposed at an acute angle to the axis of the tube and a peripheral part disposed at an angle to said straight element, contacting said roller element and part respectively with the face and the outer edge of the coiled strip and effecting relative rotation and longitudinal movement of the tube and the spacing roller to extend the coiled strip along the tube and simultaneously contract the internal diameter of the coiled strip sufficiently to contact its inner edge with the wall of the tube and turn the plane of the strip to an acute angle to the axis of the tube.

3. Apparatus for spacing a pre-coiled, flat, radially-extending fin on a tube comprising means for rotating the tube, a support movable longitudinally of the tube and in parallelism therewith, means for shifting said support longitudinally of the tube in timed relation with the rotation of the tube and a spacing roller carried by said traveling support and having only two fin-engaging and confining surfaces, one including a straight fin face-engaging element disposed at an acute angle to the tube axis and the other being a peripheral shoulder disposed at such an angle to said fin-face-engaging element as to adapt it to engage and confine a substantial portion of the outer edge surface of a fin when a fin face is engaged by said other surface, said fin-engaging and confining surfaces acting to space the successive turns of a fin

longitudinally of the tube and to bend the plane of a fin toward the tube at an acute angle to the axis of the tube.

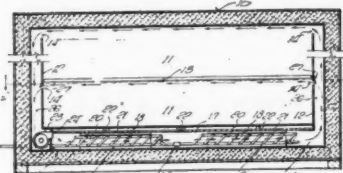
2,442,515. OPEN TOP DISPLAY REFRIGERATOR. Clifford B. Shreve, Niles, Mich., assignor to Tyler Fixture Corp., Niles, Mich., a corporation of Michigan.



1. In a construction as described, a merchandise holding case having a compartment open at the top and accessible from front or rear, a super-structure extending above said case and having front and rear openings, a panel for carrying a mirror normally closing the rear opening in the super-structure and inclined forwardly and upwardly over the top opening in the case, said panel being

pivoted near its top on said super-structure whereby it may be swung to an upwardly rearwardly inclined position over said top opening in the case and partially closing the front opening in the super-structure and releasable means for retaining said panel in either of said positions.

2,442,719. REFRIGERATION COIL. Jack J. Booth, Dallas, Tex., assignor to John S. Booth, Dallas, Tex.



2. As a new article of manufacture, a refrigerating coil consisting of a spiral tube through which a liquid refrigerant is intermittently circulated, the convolutions of said tube being inclined and formed into a flattened body and so arranged that their ends will be alternately staggered to admit of unrestricted passage of air and a plurality of parallel fins extending longitudinally of said body within the confines of said coil.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion 50 words or under. 5¢ ea. additional word.

RATES for all other classifications \$5.00 per insertion 50 words or under. 10¢ ea. additional word.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

EXTENSIVE 14 year background in refrigeration problems. Wide experience includes engineering design, product development, laboratory research and field applications. Thorough knowledge of application problems involving condensing units, evaporators and controls includes 4 refrigerants. Familiar with laboratory design and instrumentation also ASRE commercial code testing. BOX 2847 Air Conditioning & Refrigeration News.

SERVICE MAN, 11 years experience all types commercial, industrial and air conditioning. 5 years as service manager for largest service company in midwestern city. One year as manufacturer's service representative. Plenty low temperature experience. Prefer to locate in west or southwest as manufacturer's representative. BOX 2909 Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SALESMEN: AIR conditioning, commercial refrigeration, ice cream and custard freezers. Top national lines. Men interested in over \$10,000 annually. DRESCO REFRIGERATION COMPANY, 4404 Woodward Avenue, Detroit 1, Michigan.

WANTED: REFRIGERATION teacher with B.S. degree. Twelve months contract with one month's paid vacation. Should be able to teach refrigeration and air conditioning subjects to college students. Apply to J. Cecil Sharp, in care of the UTAH STATE AGRICULTURAL COLLEGE, Logan, Utah, giving experience and salary requested. A small, inexpensive photo should accompany the application.

SALES AND Service Engineer. Capable of taking full charge of one of the oldest and largest commercial and industrial refrigeration and air conditioning dealers in New Jersey; must be able to estimate lay out and supervise installations. Write full details of qualifications, experience, age, and salary expected. BOX 2881 Air Conditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE—Some territories still open for manufacturer's representative to handle a complete line of air conditioning package units which have won national acceptance. Write complete details of your present operation and background. BOX 2905, Air Conditioning & Refrigeration News.

DISTRICT MANAGER—Store fixtures. Excellent territory open in Southern Ohio, Indiana, Kentucky, West Virginia, for aggressive district sales manager, to assist distributors in layout and sale of supermarket and other fixtures. An unusual opportunity, with a nationally known manufacturer of fixtures. Our entire sales organization knows of this ad. Write BOX 2882, Air Conditioning & Refrigeration News.

SALES OPPORTUNITY for qualified air conditioning and refrigeration salesman. Well established firm. Southern California. State age, experience and qualifications in detail. BOX 2894 Air Conditioning & Refrigeration News.

SALES ENGINEER—Prominent manufacturer of complete line of nationally known air conditioning equipment has position for qualified sales engineer. This is excellent opportunity for capable man interested in a travelling position and who has a proven record in sales, management, application engineering and handling dealers and distributors. In reply give age and full details of background. BOX 2902 Air Conditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE for midwestern manufacturer complete line display cases, walk-in coolers and other commercial refrigerated equipment. Territories: New England states; Eastern; and Midwest. BOX 2903, Air Conditioning & Refrigeration News.

DISTRICT MANAGERS—South-East and Mid-West territory open for aggressive sales representatives with a nationally known manufacturer of air conditioning units, condensing unit, heating & cooling coils. Experience in air conditioning

sales and application engineering with national manufacturer desired. BOX 2904 Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WANTED—SERVEL kerosene refrigerators. Spot & futures. We have available for immediate and future delivery, all leading brands household refrigerators. Price lists available. BOX 2889 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

RECONDITIONED ELECTRIC refrigerators. Immediate delivery. All standard makes. Fully guaranteed. Wholesale only from \$49.50 up. Also large stock of "as-is" refrigerators from \$20 up. We buy trade-ins. APPLIANCE PRODUCTION CORP., 59 Crosby St., NY 12, NY.

SEALED UNITS rebuilt and exchanged. Prompt service on Goldspot (sealed & semi-sealed), Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Mich.

FIFTEEN USED electric carbonators, very low price for the lot, most of them have motors in good condition, linings in most of them need repairing. Write for complete list. CARTER, INC., 16 E. Marshall St., Richmond, Va.

FOR SALE—One 3 HP Chrysler Airtemp unit in perfect condition. Very reasonable. GORDON-PERITO CORP., 6024 7th Ave., Brooklyn, N. Y. Tel. No. Gedney 9 7679.

GOVERNMENT SURPLUS 1/2, 2, 3, 5, 7 1/2 HP Carrier or York compressors with marine or regular condenser receivers AC or DC motors. Ice makers 1 ton capacity, cold storage doors complete with frames opening 57" x 34". New Mills ice-cream cabinets 40 and 60 gal. with 15 gal. mix compartment. 30 gal. mix cabinets only \$115.00 each net. Mills freezers 2 1/2 and 5 gal capacity. 25 to 40% off factory list price. Write to INTERSTATE TRADING CORP., 51 Chambers Street, New York 7, N. Y.

AMANA MODEL 200 walk-in freezer-coolers, 123 cu. ft. 8'x4'x6'10" marine bonded plywood construction. Self contained 1/2 HP Universal compressor, blower coil, 4-Dole freezer plates, factory assembled, tested & charged with "F-12." All new created, offered subject to prior sale. Sacrifice \$550.00 F.O.B. SD/BL. MASON, BROWN & COLVILLE, INC., 1529 Walnut St., Philadelphia 2, Pa.

JACK & HEINTZ fractional motors: 1/4 HP split phase, 60 cycle 115v. AC single phase, resilient base. For easy to start fans and blowers—\$12.07. 1/2 HP general purpose heavy duty capacitor 60 cycle, 115v. AC resilient base—\$12.74. 1/2 HP oil burner split phase, totally enclosed flange mounted 115v. 60 cycle—\$15.34. Winco motors: 1/4 HP D.C., 220v.—\$27.00. Young deluxe washing machines—\$130.00. FAS, New York, boxed for export. S. J. O'BRIEN SALES CORPORATION, 560 W. 34th St., New York, N. Y. Telephone: WI 7-2100.

5 HP MILLS condensing units, \$350. 5 HP Typhoon Weathermakers, \$295. 1 HP Amco Weathermakers, \$175. Following less motors: 50 HP Schnacke, \$895. 1/2 HP Universals, \$59. Westinghouse 2 1/2 ton used self-contained air conditioner, \$395. Some "as is" household used refrigerators. PILGRIM, 48-20 43rd Avenue, L. I. City 4, N. Y.

REAL BARGAIN, manufacturer's surplus of latest Copeland 7 1/2 ton condensing units, still in original crates. Complete with controls and motor \$565.00 F.O.B. less motor \$450.00 F.O.B. RELIABLE MACHINE WORKS INC., 238 Eagle Street, Brooklyn 22, New York.

FRIGIDAIRE METER-MISER terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. Stops leaky terminals on 1933 to 1937 units. Part No. 1150—\$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

SEALED CROSLLEY terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. No special tools needed. Stops leaky terminals on "F-12" units. Part # 1020 short model—for short Crosley terminals ("F-12 compressors with 4 mounting legs.) Part #1020 long model—for long Crosley terminals ("F-12" compressors with 3 mounting legs.) \$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

300 #672-730 3/4" Inlet by 1/2" Outlet x 1/2" Orifice; Range 0 to 50# new Detroit Automatic expansion valves at \$2.25 each F.O.B. St. Louis, Mo. SELB MFG. CO., 1541 Salzman Avenue, St. Louis 20, Mo.

SUBJECT TO prior sale: hermetic Chieftain units—1/4 H. P., \$44.50; 1/2 H. P., \$48.50. Other well known hermetics—1/4 H. P. fan cooled, \$52.50; 1/2 H. P. fan cooled light duty, \$57.50; 1/2 H. P. fan cooled heavy duty, \$59.50; 1/2 H. P. fan cooled, \$69.50. Open units, standard makes—1/4 H. P., \$54.50; 1/2 H. P., \$64.50; 1/2 H. P., \$84.50. Above prices quoted on lots of six. All open units are 60 cycle, single phase. All above units new, carrying factory warranty. Write for unit list. Minneapolis-Honeywell, Dual press. control, \$4.50; Minneapolis-Honeywell Low press. control, \$3.00; White-Rodgers, Low press. control, \$3.25; Genuine Frigidaire Low press. control, Y L. \$4.25; Detroit Low pressure control, \$4.25; G. E. Blower fan motor with 10" fan, 110 v. 606. \$4.50; Superior Heat Exchanger, 13" overall, 3/4" x 3/4", \$4.75; Mueller Heat Exchanger, 14 1/2" overall, 3/4" x 3/4", \$5.00; Mueller Heat Exchanger, 21" overall, 1/2" x 1 1/4", \$9.00; Kayson heavy duty cooler locks, 13" overall, with set of hinges, 15" overall, complete with inside push rod and master lock and keys, \$9.50; Kramer Trenton 1/2 ton panel blower compressor, \$35.00; Vapor proof refrigerator lights, with guard, \$3.00; Filter drier, silica gel, 1/4" x 1 1/4" x 6 1/4" overall, 10, \$6.50; U. S. "Freon" gauge 4 1/2" face, 30" vac., 150# or 300# corresponding temperature scale, red warning hand, \$4.50; 5 lb. can Davison refrigeration silica gel, \$1.10; Cold plates —1-30" x 55"-2-30" x 64", 3 to a set, \$35.00. WALTER W. STARR, 1207 W. George St., Chicago 13, Ill.

REBUILD YOUR own sealed units. Send us your burnt and stuck up heads and they will be immediately replaced from our stock. Send for our complete price list. TECHNICAL REFRIGERATION SPECIALISTS, 362 East 180th Street, Bronx 57, New York.

FRANCHISES WANTED

MANUFACTURER LOCATED in east interested in producing specialty item in conjunction with refrigeration, small or large quantity. Inquiries with full details invited. BOX 2911 Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

AUDELS REFRIGERATION & Air Conditioning Guide. A useful manual, 1280 pages. Fully illustrated, covering the theory, construction, servicing, operation and repair of household, commercial and industrial refrigeration & air conditioning. 1001 facts. Easy to understand. Highly endorsed by service men and mechanics. Price \$4 postpaid. Money refunded if not pleased. AUDEL PUBLISHERS, 49 West 23 St., New York 10, N. Y.

SOUTHERN CALIF. location, refrigeration & electrical business. Domestic sales, service and commercial installations. Nationally known franchises, entire county for Frigidaire commercial. Complete machine shop in connection with store. Fine lease, low rent. Owner retiring. Price \$45,000.00—1/2 cash. REDMON-CORROR, 240 East 9th Street, Upland, Calif. Phone 312-172.

ESTABLISHED BUSINESS in Florida over 25 years for meat market equipment. \$50,000.00. Stock and building. \$75,000.00. In the heart of town, will sell business with long lease or sell both. Terms arranged if necessary. BOX 2897 Air Conditioning & Refrigeration News.

COMMERCIAL REFRIGERATION business with nationally known franchises for fixtures, air conditioning and home freezers. Established dealer organization and direct retail accounts. Located in industrial city of Mid-West. New building built for the business doing approximately \$150,000 gross year. Will sell property, equipment, trucks, inventory complete. BOX 2899 Air Conditioning & Refrigeration News.

TAMPA FLORIDA, established refrigeration and air conditioning sales and service business with franchises for 7 counties comprising the largest marketing area in Florida, for sale. Two salesmen and two servicemen all active and busy. Will sell at stock and fixture cost, about \$9,000.00. BOX 2910 Air Conditioning & Refrigeration News.

COMMERCIAL REFRIGERATION and restaurant equipment business handling nationally known merchandise. Located in North Carolina city of over 100,000 population. Sales run between \$150,000 and \$200,000 annually. New building, good location, to either sell or lease. BOX 2912 Air Conditioning & Refrigeration News.

Subscribe Now

Receive the greatest trade paper in the Industry—AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on household refrigeration, commercial refrigeration, air conditioning, home freezers; manufacturing, distributing, retailing, servicing, and contracting. Only \$5 per year, 52 issues.

Fill in coupon and mail today

AIR CONDITIONING & REFRIGERATION NEWS
450 West Fort Street, Detroit 26, Michigan

Gentlemen: Send the NEWS for one year.

☐ \$5 enclosed ☐ Bill me ☐ Bill the company

Name.....

Company.....

Street.....

City.....Zone.....State.....

Kende Heads Admiral's New International Div.

CHICAGO — Admiral Corp. has formed an international division to handle the marketing activities of its products outside the Continental United States and Canada, it was announced by Ross D. Siragusa, Admiral president.

George Kende, who for the last five years served as assistant export manager in charge of dealer business for Montgomery Ward & Co., heads the new division.

The division will maintain headquarters in Admiral's Chicago offices. A sub-office will be set up at the Admiral Corp. New York City distributor division. In addition, all company distributor facilities will be utilized in the New Orleans, Los Angeles, San Francisco, Seattle, Boston, Philadelphia, and Baltimore areas.

The shift from the New York City manufacturer's export managing firm of Ad Auriema, Inc., which had handled overseas merchandising of Admiral products since 1938, was made to allow intensive concentration on Admiral products exclusively in order to secure the maximum share of overseas potential sales, the firm explained.

"The dollar shortage in most foreign countries today has sharply curtailed exports of major appliances," Siragusa stated, "and for the first four months of this year total American exports of radios, radio tubes, electric ranges, and electric household refrigerators were only \$33,000,000.

"But with the advent of a buyer's market the sales function must be restored to its prewar importance—the very reason for setting up a direct international division."

Praises Swedish Book on Refrigeration Engineering

DETROIT—Samples of the handbooks and manuals on refrigeration being published in Sweden have been sent to the NEWS on behalf of the Swedish Society of Refrigeration.

One of these is *The Refrigeration Technician*, a refrigeration engineers' data book and applications volume written by Matts Backstrom, professor at the Royal Swedish Institute of Technology and a member of the Academy of Engineering Sciences.

In its 700-odd pages and 22 chapters, this profusely illustrated handbook covers practically every phase of the subject. One reviewer said it "must be considered as the modern standard work in all the Nordic countries."

Some chapters have been printed as separate manuals. Some items in one of these, a manual on refrigeration nomenclature, have been adopted by the American Society of Refrigerating Engineers, it was reported.

B-W International In New Office

CHICAGO — The local office of Borg-Warner International Corp. has been moved to 206 South Michigan Ave., Chicago 4, the firm announced.



Mexico, Venezuela, Cuba Join 'Big 3' As Leading Latin American Markets

By Eugene Hesz, International Market Analyst

Do we in the United States realize that the entire continent of South America has been placed on a new spot of the world map?

Strange as it may sound, this is actually the case, if one considers the changes which the transportation system in the world has undergone in the last 10 years. Before the present trading period Europe was not only dominating the South American markets on account of export experience, state subsidies, and this country's somewhat passive attitude.

The distances played a decisive factor. Very often a businessman from the U. S. made an excellent connection by taking a fast boat to Liverpool and then a good English ship to South America. Whatever he did, several weeks of traveling time was the minimum needed to reach his

South American destination. The conclusions on past and present shipping conditions of merchandise are evident.

It is not necessary to elaborate how radically this all has changed. Telephone, direct air communication, and in the last 12 months a splendidly improved air freight service have moved the other Americas to the doorstep of the United States.

The fact that the Allies bought during the last war from South America for many "more" billions of dollars merchandise, than they could deliver in return has brought about the enormous increase in United States-Latin American trade which we have just witnessed. The tremendous change of the direction of the foreign trade of Brazil is a typical example for this:

Total Foreign Trade of Brazil

Four typical years: 1938, 1940, 1946, and 1947

Year	Exports	Imports (In Thousands of Cruzeiros*)	Trade Balance
1938.....	5,096,889	5,195,569	minus 98,680
1940.....	4,961,000	4,964,000	minus 3,000
1946.....	18,230,000	13,029,000	plus 5,201,000
1947.....	21,179,000	22,789,000	minus 1,610,000

*1 cruzeiro equals about \$0.20.

From the above table it is clear that the Brazilian foreign trade had a splendid development in 1946, showing a large surplus. In 1947, it went back to the pre-war picture. But this, as we hope, is only temporary, as the country is actually sound, if its economy is widely directed. Energetic attempts are underway to achieve this goal.

Still more typical than the above figures is the percentage distribution of the direction of the foreign trade. In 1938, Brazil exported 19% to Germany, 9% to Great Britain, and 34% to the United States. In the year 1947 the exports to Germany were negligible, the exports to Great Britain amounted to under 8%, the exports to the United States 28%.

The imports into Brazil show the following picture in 1940: Germany delivered 25%, Great Britain 10%, and the United States 24%. In 1947 the German exports to Brazil are negligible, the British exports are 7%, and the United States exports are 60% of the total imports of Brazil.

This glance at the large shift in world trade, demonstrated by only one single country's example, gives an indication of the present trend.

We have been used to looking at the other Americas with the idea that "A, B, C," was the backbone of Latin-American cultural and economic life. The letters stand, as is common knowledge, for Argentina, Brazil, and Chile. These famous letters are not quoted here for historical reasons. They may also show the way of things to come or rather, of things to come back.

In the meantime the picture of the "big three" is out of date; at least it is necessary to add to the list of the leading countries another three whose standing and financial capacity has increased rapidly, in the last few years for many different reasons. These three countries which march in line with the former leaders are Mexico, Venezuela, and Cuba.

If we look today at these six countries from the angle of the capacity of paying for United States exports in good American dollars, promptly and without too much red tape, we shall quickly find out that the present leading or potential customer countries of the above six are Cuba and Venezuela. Mexico and Brazil rank next, and Argentina and Chile are for the time being in the background on account of dollar difficulties.

Output of Refrigerators On Increase In Canada

WASHINGTON, D. C.—Statistics on Canadian production and imports and exports of electric refrigerators, washing machines, and vacuum cleaners have been reported by the Office of International Trade, U. S. Department of Commerce.

Output of domestic electric refrigerators during the first quarter of 1948 totaled 32,303, compared with 24,748 in the corresponding period of 1947. A total of 1,384 units, valued at \$173,454 (including parts) were exported during that period, according to OIT.

Imports of refrigerators (domestic or store, completely equipped or not) during the three-month period totaled 745, valued at \$117,959. Imports of refrigerator parts were valued at \$1,618,311.

Washing machine production in the first quarter amounted to 75,452. Of this total, 67,416 were electric machines, 5,400 gasoline-operated, and 2,636 hand-operated.

Imports of washing machines during the same period included 1,216 domestic electric units, and exports included 2,933 such machines. The value of imports (including parts) was \$328,313, and the value of exports (including parts) was \$426,249.

Production of electric vacuum cleaners in 1947 totaled 48,327 floor models and 67,479 cylinder models, compared with 24,183 and 31,247 respectively in 1946. Factory sales of cleaners and parts totaled \$5,937,370, against \$2,997,244 in 1946.

Electric cleaner imports in 1947 amounted to 99,168, valued at \$3,198,309, compared with 36,875, valued at \$1,017,440 in the preceding year. Exports of cleaners and parts totaled 1,881; machines and parts were valued at \$88,656.

Markets In Lebanon, Syria

NEW YORK CITY—Fuad Pharaon, president of Pharaon-Publicite, an advertising agency in Beyrouth, Lebanon, arrived here recently with the news that Lebanon and Syria are fertile markets for such consumer goods as refrigerators, air conditioning equipment, home appliances, radios, and the like.

He said the two countries have sufficient dollars to pay for U. S. products and have the advertising facilities for aggressive promotion.

Thermo Control Sets Up Distributorship In Mexico

MINNEAPOLIS—Transport refrigeration equipment manufactured in Minneapolis will be available to truckers in Mexico, it was announced by J. A. Numero, president of U. S. Thermo Control Co.

Returning from a trip to Mexico City, Numero said his firm will distribute its products through the Refrigeration Industrial, S.A., which will handle sales and service throughout Mexico for the Thermo-King refrigeration unit in particular.

The Mexican distributorship is the third to be established in Latin America by U. S. Thermo Control, which makes portable cooling equipment for transport trucks. Agencies currently are operating in Buenos Aires, Argentina, and Caracas, Venezuela.

Test Refrigerator Car Being Built by Indian Railways

WASHINGTON, D. C.—Plans for the introduction of refrigerator cars on the Indian Railways are now in progress, the Office of International Trade, U. S. Department of Commerce, reports.

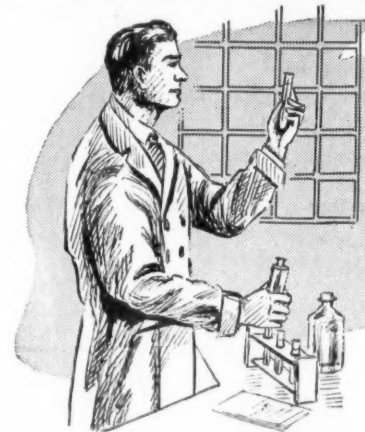
A test car equipped with two Diesel blowers supplied by a Los Angeles manufacturer is now under construction in the shops of the Bombay, Baroda & Central India Railways, the report says. The car is scheduled for a demonstration run this summer.

"The initial use of eight refrigerator cars is planned to bring fresh milk to Bombay from Baroda," the report continued. "If successful, expansion to the vegetable-producing area at Poona is planned."

Australia Called Market For Evaporative Coolers

PHOENIX, Ariz.—Australia is a fertile market for manufacturers of evaporative coolers, in the opinion of an ex-GI who has returned from his second trip to that continent.

Although many Australians enjoy a climate comparable to that of this valley, there isn't a single evaporative cooler in the whole continent as far as he knows, the veteran reported. He said the situation seemed strange since nearly all American products can be found there.



Let's talk about Chemistry!

THAWZONE DATA

That a chemical agent is needed in a refrigerating system is not always immediately apparent to the engineer.

The ideal refrigeration unit would have an inert fluid circulating in a system made up of completely inert parts. This is, of course, impossible to realize in practice. The most carefully installed system contains traces of air, moisture, acids and other impurities.

THAWZONE

PATENTED

The PIONEER FLUID DEHYDRANT

In other types of systems, such as aircraft radiators, hydraulic brakes, gasoline, etc., it has been found practical to use inhibitors to correct a situation, rather than to try to reach the ideal state in which corrosion and reactions do not occur. Similarly, in a refrigeration system THAWZONE is used to remove traces of water and air that cause freeze-ups and corrosion.

THAWZONE is a practical solution to the problem of impurities which are difficult to prevent or remove by other means. Ten years of constant use have shown that THAWZONE, as an additive agent to refrigeration systems, is eminently practical.

HIGHSIDE CHEMICALS CO.

195 VERONA AVE.

NEWARK 4, N. J.

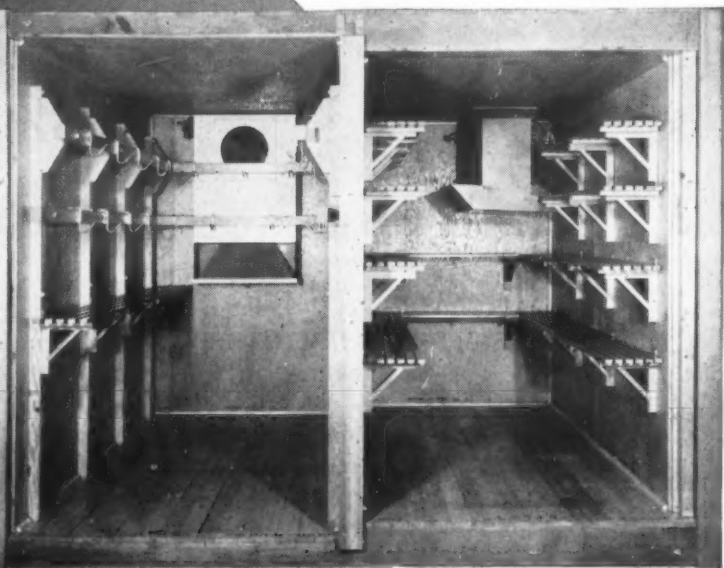
ALSO MAKERS OF

TRACE
REFRIGERANT
LEAK DETECTOR

*TRADE MARK REG. U. S. PAT. OFF.

COLD AND COLDER

Alert to the need for greater storage capacity for frozen foods, a combination cooler has been added to the SHERER line of display and storage refrigerators... and there's a section for 38°F and one for 0°F. This refrigerator will find favor with food markets, hotels, restaurants, institutions, and clubs. Also available to SHERER distributors is an all-freezer cooler in a variety of sizes.



SHERER

REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO.
Marshall, Michigan

Consumer-Dealer Reaction to Controls--

(Concluded from Page 1, Column 4)

The one dealer who reported a substantial increase in store traffic since the GOP bill was signed by President Truman described the upsurge as "terrific" and "unbelievable."

"I've never seen anything like it," he said. "Our trucks are one and two days behind on deliveries."

This retailer, whose store is located in a suburb, attributed the "panic buying" directly to the approaching credit curbs. But, he added, the rush is certainly not necessary because his customers are not in the low-income bracket. He said the customers were asking for the lowest down payment and the maximum time to pay.

Most of the retailers interviewed did not appear to be particularly disturbed over the new controls, although some expect sales to be affected adversely to some extent. Typical comments of independent dealers were:

"We have never sold terms here and consequently I haven't been too worried."

"We haven't noticed any increase in customers because of the controls. But we are not a term house. I don't believe the controls will have much effect on sound independent dealers who are not dealing in terms. But the curbs may take some business away from the chains."

A few of the dealers said they were definitely in favor of credit controls. Oddly, one of these is a chain which has offered liberal terms.

"I feel that the curbs are just what the doctor ordered for the economic good of the country," the company's merchandise manager said. "Our customers are in the medium and low-income group and I definitely think that the credit controls will take a lot of them out of the market. Nevertheless, I feel that the government should have restored controls long ago as a step to combat inflation."

Two others, the owner of a neighborhood appliance store and the manager of the appliance division of a downtown store, also indicated approval of the controls.

"Even if I had to suffer some loss in sales, I would still be in favor of controls to keep the country healthy economically," the former declared. He said he objected to 10% down payments because they create an "unhealthy situation."

The latter, whose store has been asking a down payment of 25% or better, stressed that "nothing down and 36 months to pay has broken the back of more dealers than anything else." He asked: "What's the use of wrecking ourselves?"

"You'll never sell merchandise by giving it away," he asserted. "This never leads to anything but chaotic conditions. I've seen it happen before and it's happening again."

How the instalment-buying regulation will affect sales is "a gamble and a guess," according to the merchandise manager of another appliance chain. As for customer reaction, he said "no one has broken down the doors yet!"

An officer of still another chain said the idea that the FRB order will control inflation is "silly." He compared its potential effectiveness to "spitting in the ocean" and described it as "political propaganda."

"The only one who will be affected will be the poor devil who has his hands full now," the official said.

Refrigerators will be the one appliance hardest hit by the controls, he thinks, with not many others being affected much. For example, he elaborated, the furniture market is the poorest since 1941 and there is no shortage of vacuum cleaners and radios—so credit curbs will mean little in these cases.

Dealer Group Says 'No' To Utility Discount Plea

READING, Pa. — Following the lead of dealers in nearby Allentown, members of the Berks County Appliance Dealers' Association turned thumbs down on a plan proposed by Pennsylvania Power & Light Co. under which they would grant utility employees 20% discounts from list prices.

The utility, which employs about 6,500 persons in eastern Pennsylvania, no longer handles appliances. Therefore, it asked dealers in counties where its personnel are employed to grant discounts on all items except radios. Most of PP&L's employees are located in Allentown.

Richard G. Beyerle, association secretary, said the plan was rejected because it would involve too many fair-traded items and guarantees.

Gov't. Requires 20% Down, 15 Months

(Concluded from Page 1, Column 5)

bank loans to violate Regulation W, said the Federal Reserve Board.

The new credit controls will not affect regular charge accounts, as did the wartime Regulation W.

Full details on the new regulation will not be known until it is published in the Federal Register, the Federal Reserve Board said. Copies will probably be distributed by Federal Reserve Banks this week, however.

Passed by Congress just before it adjourned, the bill became law when President Truman signed it last Tuesday.

In announcing the major provisions of the new regulation, the Board of Governors of the Federal Reserve System declared:

TERMS HAVE RELAXED

"Since Nov. 1, 1947, when the old regulation ended, terms offered by merchants and lenders extending credit have been relaxed considerably. The requirements of the new regulation are somewhat less restrictive than those of last November but considerably tighter than terms now generally in effect.

"Instalment credit for home improvements was eliminated from Regulation W after the close of the war, and it is at present not covered in the regulation. Because of the current inflationary situation, however, the board is considering the advisability of an amendment to bring such credit under the regulation.

"Before deciding whether to do

this, the board wishes to give all who are interested an opportunity to express their views. Accordingly, the board will publish in the Federal Register an invitation to interested persons to submit comments on the question whether such an amendment would be desirable.

"The board is also giving consideration to an amendment which would have the effect of making unenforceable any contract which does not conform to the provisions of the regulation on down payments or maturities. A similar procedure for receiving comment will be followed."

CONTRACTS UNENFORCEABLE?

This latter amendment, if it is adopted, might have far-reaching effects in some instances.

Suppose, for example, a dealer gave terms which were not allowable under Regulation W. The contract would then be unenforceable. Conceivably this might mean that the purchaser would not have to fulfill his part of the contract and could keep the merchandise without making full payments.

This amendment, of course, has not been put into effect, and the results might not be exactly as indicated above, but the proposal should be carefully watched for developments.

Regulation W will be administered in the field by the 12 Federal Reserve Banks and their 24 branches located throughout the country, the board explained. Inquiries should be addressed to the nearest Federal Reserve Bank or branch.

Dept. Store Sales Jump 16% In Week of Aug. 7

WASHINGTON, D. C. — Dollar sales of national department stores rose sharply 16% in the week ending Aug. 7 over the same week last year, reports the Federal Reserve Board.

All districts shared in the gain, which compares with an increase of 7% for the week ending July 31, 8% for the July 24 week, and 9% for July 17.

Percentage gains by districts were as follows:

	Week Ending Aug. 7	July 31	Year to Aug. 7
Boston	9	1	3
New York	12	4	6
Philadelphia	13	7	8
Cleveland	22	6	9
Richmond	12	6	4
Atlanta	16	11	10
Chicago	21	10	8
St. Louis	24	11	10
Minneapolis .....	.....	.....	8
Kansas City	23	12	10
Dallas	15	16	13
San Francisco ..	7	2	4
U. S. Total	16	7	7

Noma, Stangard Combine Purchasing Under Wise

NEWARK, N. J.—Purchasing departments of Noma Electric Corp.'s Refrigeration Division and the Stangard Dickerson Division have been consolidated under George J. Wise, purchasing director, who will have his offices at 46 Oliver St., Newark 5, the company announces.

NEMA Sales In June Total 389,973 Units

Complete Refrigerators Only
(Lacquer and Porcelain Exterior Cabinets) (Advertised Sizes)
JUNE (13 Companies Reporting)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft.	271	.....	.....	271
2. 4 cu. ft.	1,386	.....	15	1,401
3. 5 cu. ft.	200	.....	.....	200
4. 6 cu. ft.	48,683	.....	3,569	52,252
5. 7 cu. ft.	95,312	.....	5,202	100,514
6. 8 cu. ft.	108,978	1	4,674	113,653
7. 9 and 10 cu. ft.	99,124	.....	2,704	101,828
8. 11 and 12 cu. ft.	19,161	.....	693	19,854
9. 13 cu. ft. and up .....	.....	.....	.....	.....
10. Total	373,115	1	16,857	389,973

FIRST SIX MONTHS (11 and 13 Companies Reporting)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft.	1,812	.....	.....	1,812
2. 4 cu. ft.	6,457	.....	139	6,596
3. 5 cu. ft.	200	.....	.....	200
4. 6 cu. ft.	210,060	.....	24,524	234,584
5. 7 cu. ft.	604,298	703	41,891	646,892
6. 8 cu. ft.	577,015	67	23,070	600,152
7. 9 and 10 cu. ft.	457,093	2	11,839	468,934
8. 11 and 12 cu. ft.	56,471	1	879	57,351
9. 13 cu. ft. and up	2	.....	.....	2
10. Total	1,913,408	773	102,342	2,016,523

Participating companies: Admiral Corp.; Crosley Div., AVCO Mfg. Corp.; The Coolerator Co.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint, Inc.; International Harvester Co. (In 4/1/48); Nash-Kelvinator Corp.; Norge Div., Borg-Warner Corp.; Seeger Refrigerator Co.; Stoddard Mfg. Co. (In 6/1/48); and Westinghouse Electric Corp.

26,000 SQUARE FEET OF STORE AND WAREHOUSE SPACE

The Supply House That Service Built



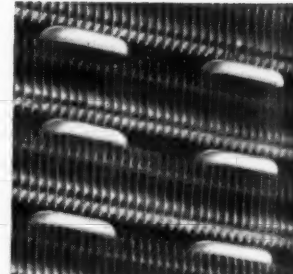
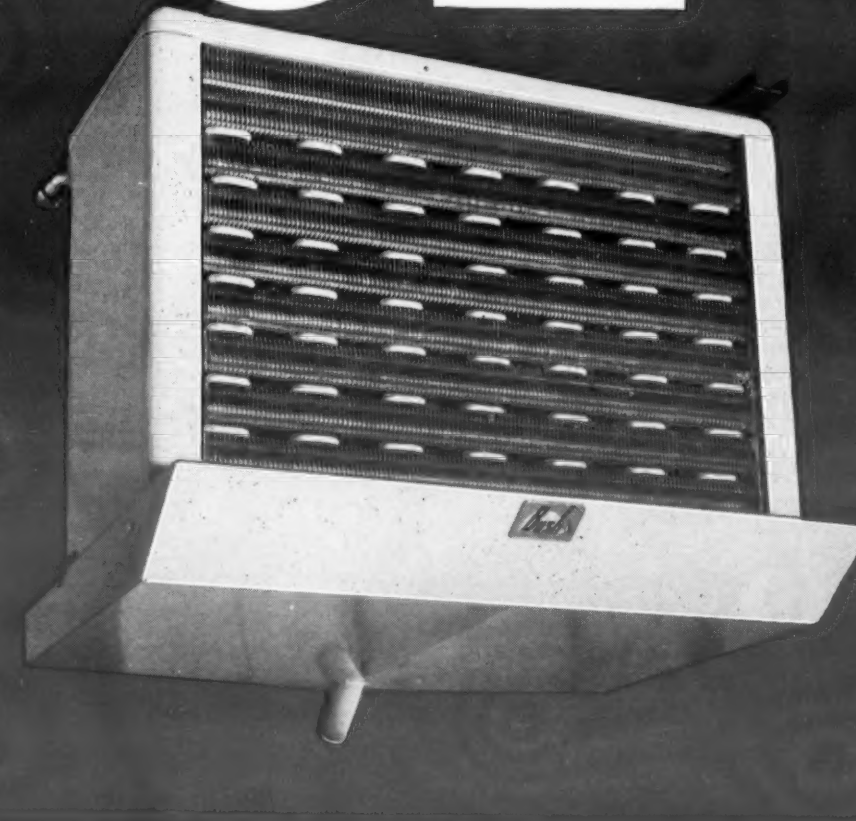
Everything you need in REFRIGERATION, AIR CONDITIONING, HEATING PARTS and SUPPLIES

Save time and energy . . . order from our new catalog. Efficient same-day service, from men who know your business. Keep your stocks complete from our stocks. Wholesale only.

SERVICE PARTS CO.

2511-2611 LAKE ST. MELROSE PARK, ILL.

BELOW 32° The New BUSH ELECTRIC DEFROST



Enlarged coil section showing tinned copper tube enclosing special heating cable which defrosts coil rapidly by spreading large heat input of low intensity evenly over entire coil area. Low intensity and even distribution of heat result in its almost total absorption in melted frost, which is drained immediately from heated pan without producing rise in box temperature.



The new BUSH DF (Electric Defrost) Line is designed for use in low temperature applications in localities where water supply is limited or where water temperature is too low for efficient defrosting. At 10° TD capacities range from 4,500 to 18,000 BTU/HR. Normal frost load is removed in 20 to 30 minutes of heat application without enclosing louvers. BUSH Products are AVAILABLE NOW through leading refrigeration and air conditioning wholesalers everywhere.

Ask your wholesaler for your copy of the Bush Engineering Data Book . . . or write us direct.



BUSH MANUFACTURING CO. • WEST HARTFORD 10, CONN.